

=> file registry

FILE 'REGISTRY' ENTERED AT 14:36:38 ON 29 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 DEC 2005 HIGHEST RN 870751-96-5

DICTIONARY FILE UPDATES: 28 DEC 2005 HIGHEST RN 870751-96-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> file caplus

FILE 'CAPLUS' ENTERED AT 14:36:45 ON 29 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 29 Dec 2005 VOL 144 ISS 1

FILE LAST UPDATED: 28 Dec 2005 (20051228/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.

They are available for your review at:

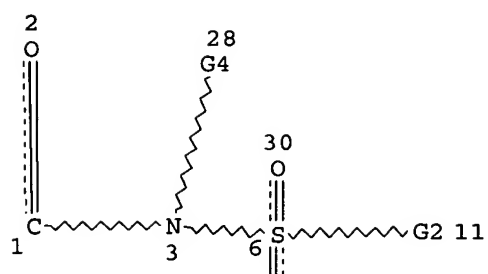
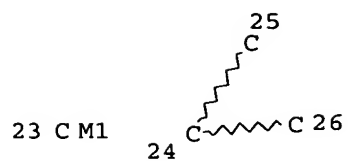
<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d stat que L69

L2           118 SEA FILE=REGISTRY ABB=ON PLU=ON (7719-09-7/BI OR 929-06-6/BI  
OR 128-44-9/BI OR 25086-15-1/BI OR 81-07-2/BI OR 851778-65-9/BI  
OR 10025-78-2/BI OR 108-30-5/BI OR 108-55-4/BI OR 110-71-4/BI  
OR 111-19-3/BI OR 121-44-8/BI OR 147072-47-7/BI OR 157090-59-0/  
BI OR 23483-56-9/BI OR 3007-31-6/BI OR 335-05-7/BI OR 34310-29-  
7/BI OR 41643-17-8/BI OR 456-64-4/BI OR 6066-82-6/BI OR  
7087-68-5/BI OR 71310-21-9/BI OR 7440-21-3/BI OR 75-09-2/BI OR  
851778-52-4/BI OR 851778-53-5/BI OR 851778-54-6/BI OR 851778-55  
-7/BI OR 851778-58-0/BI OR 851778-59-1/BI OR 851778-60-4/BI OR  
851778-61-5/BI OR 851778-62-6/BI OR 851778-63-7/BI OR 851778-69  
-3/BI OR 852233-93-3/BI OR 852233-95-5/BI OR 868-77-9/BI OR  
100-42-5/BI OR 104-15-4/BI OR 118216-33-4/BI OR 124-22-1/BI OR  
1333-07-9/BI OR 13472-08-7/BI OR 138-41-0/BI OR 1484-13-5/BI  
OR 149-73-5/BI OR 18358-13-9/BI OR 2016-57-1/BI OR 22535-49-5/B  
I OR 22808-73-7/BI OR 24937-79-9/BI OR 25067-59-8/BI OR  
25190-89-0/BI OR 2530-85-0/BI OR 25322-68-3/BI OR 26249-38-7/BI  
OR 2680-03-7/BI OR 27072-45-3/BI OR 27236-80-2/BI OR 31049-18-  
0/BI OR 38460-95-6/BI OR 4420-74-0/BI OR 51178-68-8/BI OR  
54773-31-8/BI OR 56-87-1/BI OR 56992-87-1/BI OR 6155-57-3/BI  
OR 63-74-1/BI OR 64114-51-8/BI OR 67584-59-2/BI OR 68-12-2/BI  
OR 74-89-5/BI OR 7440-32-6/BI OR 7440-44-0/BI OR 7440-57-5/BI  
OR 75-44-5/BI OR 75-76-3/BI OR 7534-94-3/BI OR 76-32-4/BI OR  
760-93-0/BI OR 80-62-6/BI OR 814-68-6/BI OR 826-62-0/BI OR  
851778-56-8/BI OR 851778-57-9/BI OR 851778-64-8/BI OR 851778-66  
-0/BI OR 851778-67-1/BI OR 851778-68-2/BI OR 851778-70-6/BI OR  
851778-71-7/BI OR 851934-33-3/BI OR 851934-34-4/BI OR 851934-43  
-5/BI OR 851934-44-6/BI OR 851934-46-8/BI OR 851934-47-9/BI OR  
851934-48-0/BI OR 851934-76-4/BI OR 852233-89-7/BI OR 852233-94  
-4/BI OR 852233-96-6/BI OR 859232-48-7/BI OR 859232-49-8/BI OR  
859500-21-3/BI OR 860032-10-6/BI OR 860032-11-7/BI OR 860032-12  
-8/BI OR 860032-13-9/BI OR 860032-14-0/BI OR 860032-15-1/BI OR  
872-50-4/BI OR 9003-53-6/BI OR 9011-14-7/BI OR 92-84-2/BI OR  
999-61-1/BI)  
L3           STR

C 27



Page 1-A

Ak 4

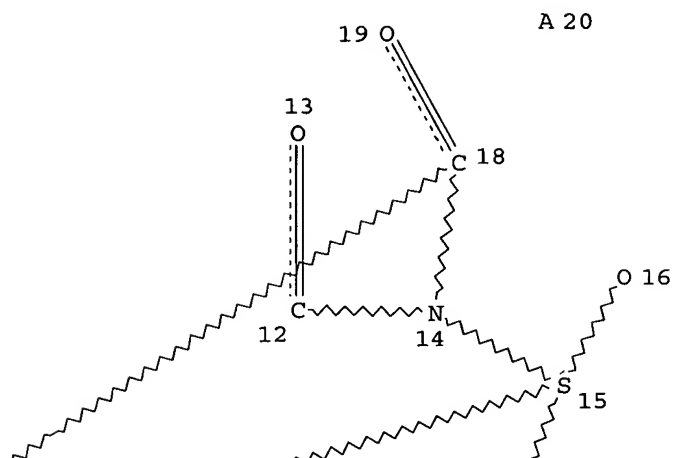
Cy 5

Page 1-B

|||  
O  
29

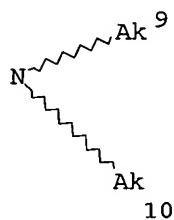
G3 22

8

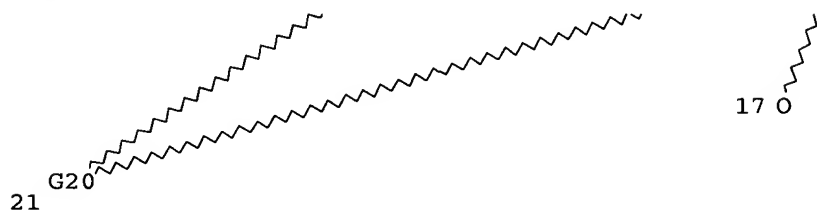


Page 2-A

N 7



Page 2-B



Page 3-A

VAR G2=4/5/7/8

VAR G3=1/12

VAR G4=5/23/24/27

REP G20=(1-5) 20-15 20-18



## NODE ATTRIBUTES:

HCOUNT	IS	M1	AT	23
NSPEC	IS	C	AT	1
NSPEC	IS	C	AT	2
NSPEC	IS	C	AT	3
NSPEC	IS	C	AT	4
NSPEC	IS	C	AT	5
NSPEC	IS	C	AT	6
NSPEC	IS	R	AT	7
NSPEC	IS	C	AT	8
NSPEC	IS	C	AT	9
NSPEC	IS	C	AT	10
NSPEC	IS	C	AT	11
NSPEC	IS	C	AT	12
NSPEC	IS	C	AT	13
NSPEC	IS	R	AT	14
NSPEC	IS	R	AT	15
NSPEC	IS	C	AT	16
NSPEC	IS	C	AT	17
NSPEC	IS	R	AT	18
NSPEC	IS	C	AT	19
NSPEC	IS	R	AT	20
NSPEC	IS	R	AT	21
NSPEC	IS	C	AT	22
NSPEC	IS	C	AT	23
NSPEC	IS	C	AT	24
NSPEC	IS	C	AT	25
NSPEC	IS	C	AT	26
NSPEC	IS	C	AT	27
NSPEC	IS	C	AT	28
NSPEC	IS	C	AT	29
NSPEC	IS	C	AT	30
CONNECT	IS	E1	RC	AT 16
CONNECT	IS	E1	RC	AT 17
CONNECT	IS	E4	RC	AT 27
DEFAULT MLEVEL IS ATOM				
MLEVEL	IS	CLASS	AT	1 2 3 4 6 8 9 10 12 13 16 17 19 23 24 25 26
				27 29 30
GGCAT	IS	UNS	AT	5
DEFAULT ECLEVEL IS LIMITED				

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 30

## STEREO ATTRIBUTES: NONE

L4 9125 SEA FILE=REGISTRY SSS FUL L3  
 L7 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.  
 L11 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.  
 L13 STR

X 21

22  
Ak  
O  
23

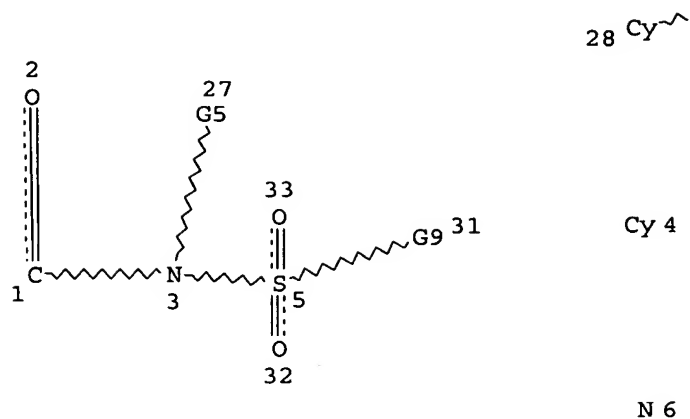
Ak 24  
Ak 25  
G4  
26

Page 1-A

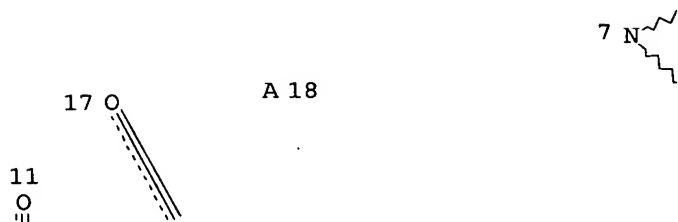
Ak 29

G8 30

Page 1-B

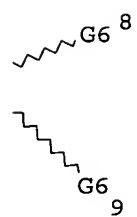


G3 20

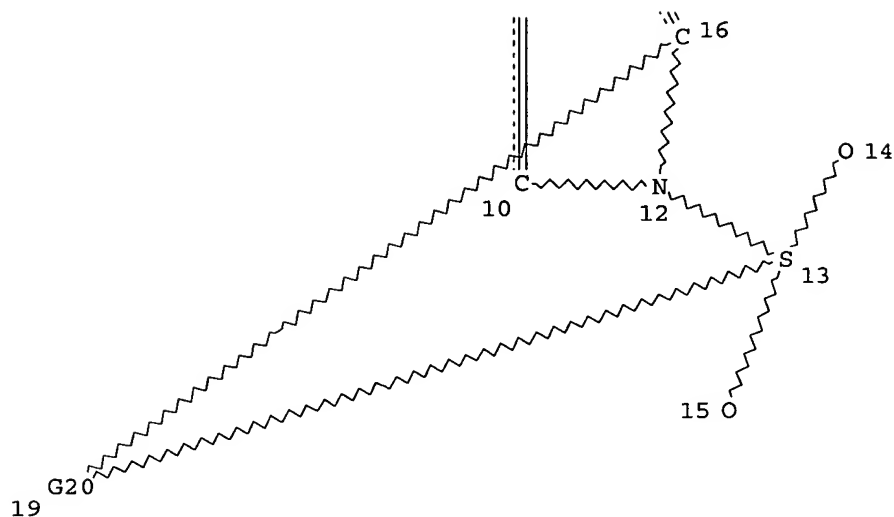


Page 2-A

~~~~~



Page 2-B



Page 3-A

VAR G3=1/10

VAR G4=21/23

VAR G5=4/24/25

VAR G6=24/25

VAR G8=21/23/29

VAR G9=4/6/7/24/25/28

REP G20=(1-5) 18-13 18-16

NODE ATTRIBUTES:

|       |      |    |    |
|-------|------|----|----|
| NSPEC | IS C | AT | 1  |
| NSPEC | IS C | AT | 2  |
| NSPEC | IS C | AT | 3  |
| NSPEC | IS C | AT | 4  |
| NSPEC | IS C | AT | 5  |
| NSPEC | IS R | AT | 6  |
| NSPEC | IS C | AT | 7  |
| NSPEC | IS C | AT | 8  |
| NSPEC | IS C | AT | 9  |
| NSPEC | IS C | AT | 10 |
| NSPEC | IS C | AT | 11 |
| NSPEC | IS R | AT | 12 |
| NSPEC | IS R | AT | 13 |
| NSPEC | IS C | AT | 14 |
| NSPEC | IS C | AT | 15 |
| NSPEC | IS R | AT | 16 |
| NSPEC | IS C | AT | 17 |
| NSPEC | IS R | AT | 18 |
| NSPEC | IS R | AT | 19 |
| NSPEC | IS C | AT | 20 |
| NSPEC | IS C | AT | 21 |
| NSPEC | IS C | AT | 22 |
| NSPEC | IS C | AT | 23 |
| NSPEC | IS C | AT | 24 |
| NSPEC | IS C | AT | 25 |
| NSPEC | IS C | AT | 26 |
| NSPEC | IS C | AT | 27 |
| NSPEC | IS C | AT | 28 |
| NSPEC | IS C | AT | 29 |
| NSPEC | IS C | AT | 30 |

NSPEC IS C AT 31  
 NSPEC IS C AT 32  
 NSPEC IS C AT 33  
 CONNECT IS E1 RC AT 4  
 CONNECT IS E1 RC AT 14  
 CONNECT IS E1 RC AT 15  
 CONNECT IS E1 RC AT 24  
 DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 1 2 3 5 7 10 11 14 15 17 21 22 23 24 25 29 32  
 33  
 GGCAT IS UNS AT 4  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L15 2986 SEA FILE=REGISTRY SUB=L4 SSS FUL L13  
 L19 1085 SEA FILE=REGISTRY SUB=L15 SSS FUL L7  
 L21 754 SEA FILE=REGISTRY SUB=L15 SSS FUL L11  
 L24 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L26 691 SEA FILE=REGISTRY SUB=L19 SSS FUL L24  
 L28 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L30 372 SEA FILE=REGISTRY SUB=L21 SSS FUL L28  
 L34 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L36 283 SEA FILE=REGISTRY SUB=L30 SSS FUL L34  
 L38 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L40 432 SEA FILE=REGISTRY SUB=L26 SSS FUL L38  
 L44 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L46 210 SEA FILE=REGISTRY SUB=L36 SSS FUL L44  
 L47 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L49 269 SEA FILE=REGISTRY SUB=L40 SSS FUL L47  
 L50 315 SEA FILE=REGISTRY ABB=ON PLU=ON L49 OR L46  
 L51 138 SEA FILE=CAPLUS ABB=ON PLU=ON L50

L60 16 SEA FILE=REGISTRY ABB=ON PLU=ON L50 AND L2  
 L62 7 SEA FILE=CAPLUS ABB=ON PLU=ON L60  
 L69 131 SEA FILE=CAPLUS ABB=ON PLU=ON L51 NOT L62

=> d ibib abs hitstr L69 65-131

L69 ANSWER 65 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1992:43341 CAPLUS

DOCUMENT NUMBER: 116:43341

TITLE: Cast-coated paper and internally-added  
 fluorine-containing surfactants for improving its  
 parting from mirror drums

INVENTOR(S): Imai, Tetsuo; Nojima, Kazuhiro; Takahashi, Mikio

PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 03213595 | A2   | 19910918 | JP 1990-10179   | 19900118 |
| JP 2883139  | B2   | 19990419 |                 |          |

PRIORITY APPLN. INFO.: JP 1990-10179 19900118

OTHER SOURCE(S): MARPAT 116:43341

AB The title surfactants are selected from (A) C4-20 (per)fluorinated alkyl or alkenyl (optionally interrupted with O or bivalent bridge) esters of phosphoric acid or its salts; (B) similar esters of sulfonic acid or its salts, (C) similar esters of carboxylic acid or its salts, and (D) similarly (per)fluorinated alkyl- or alkenyl(quaternary ammonium) compds. A typical parting aid surfactant such as C8F17SO2N(Pr)C2H4OP(O)(OH)2 was incorporated at 0.5% (based on total pigments) level to a casein-SBR latex-based coating on paper, and showed continuation of smooth sheet parting in an ordering cast coating process for >12 h.

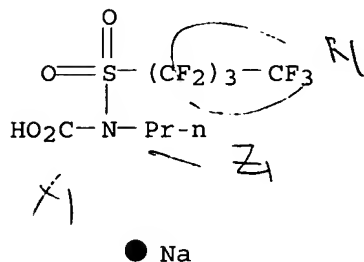
IT 138473-78-6

RL: USES (Uses)

(parting agents, for cast coating compns. on paper)

RN 138473-78-6 CAPLUS

CN Carbamic acid, [(nonafluorobutyl)sulfonyl]propyl-, sodium salt (9CI) (CA INDEX NAME)

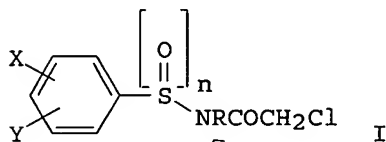


L69 ANSWER 66 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:607678 CAPLUS

DOCUMENT NUMBER: 115:207678  
 TITLE: Preparation of N-(phenylsulfenyl)-2-chloroacetamides as herbicides  
 INVENTOR(S): Hashimoto, Isao; Tsuru, Kazutaka; Ishida, Tatsuyoshi  
 PATENT ASSIGNEE(S): Mitsui Petrochemical Industries, Ltd., Japan  
 SOURCE: Can. Pat. Appl., 21 pp.  
 CODEN: CPXXEB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                                | KIND              | DATE     | APPLICATION NO. | DATE       |
|-----------------------------------------------------------|-------------------|----------|-----------------|------------|
| CA 2030001                                                | AA                | 19910517 | CA 1990-2030001 | 19901114   |
| JP 03157360                                               | A2                | 19910705 | JP 1989-296213  | 19891116   |
| EP 432471                                                 | A1                | 19910619 | EP 1990-121613  | 19901112   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |                   |          |                 |            |
| HU 55599                                                  | A2                | 19910628 | HU 1990-7153    | 19901115   |
| PRIORITY APPLN. INFO.:                                    |                   |          | JP 1989-296213  | A 19891116 |
| OTHER SOURCE(S):                                          | MARPAT 115:207678 |          |                 |            |
| GI                                                        |                   |          |                 |            |

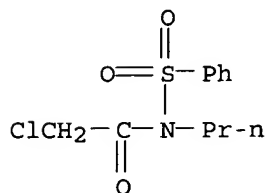


AB N-Phenylsulfenyl-2-chloroacetamides and analogs I [n = 0-2; R = H, lower (halo)alkyl, cycloalkylmethyl, (substituted) benzyl, lower alkoxyalkyl, tetrahydrofurfuryl, alkoxycarbonylmethyl, dialkylaminoethyl; X, Y = H, halo, lower alkyl, lower alkoxy, CF<sub>3</sub>, NO<sub>2</sub>; R ≠ H when one of X, Y = p-NO<sub>2</sub> and the other is H] were prepared as herbicides. Thus, 3,4-dichlorophenylsulfenyl chloride in CH<sub>2</sub>Cl<sub>2</sub> was added at 21° to a solution of ClCH<sub>2</sub>CONH<sub>2</sub>, pyridine and CH<sub>2</sub>Cl<sub>2</sub>. The temperature rose to 33° during addition and the mixture was stirred 4 h at 33-35° to give title compound I (n = 0, R = H, X = 3-Cl, Y = 4-Cl) in 60% yield. In a herbicidal test against barnyard grass, 22 title compds. showed 100% control.

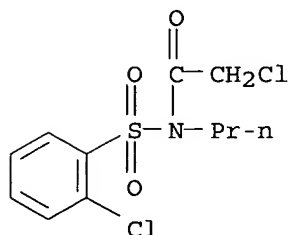
IT 136941-39-4P 136941-40-7P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

RN 136941-39-4 CAPLUS

CN Acetamide, 2-chloro-N-(phenylsulfonyl)-N-propyl- (9CI) (CA INDEX NAME)



RN 136941-40-7 CAPLUS  
 CN Acetamide, 2-chloro-N-[(2-chlorophenyl)sulfonyl]-N-propyl- (9CI) (CA INDEX NAME)



L69 ANSWER 67 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1991:553116 CAPLUS  
 DOCUMENT NUMBER: 115:153116  
 TITLE: Preparation of fluoroethylsulfonamides as insecticides and acaricides.  
 INVENTOR(S): Mori, Kaoru; Komata, Takeo; Tamai, Ryoichi; Murakami, Kazuko; Tada, Osamu; Koyasu, Hideo; Matsubuchi, Sadayuki; Fujisawa, Toyoichi  
 PATENT ASSIGNEE(S): Central Glass Co., Ltd., Japan; Kumiai Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 03068550            | A2   | 19910325 | JP 1989-206276  | 19890809 |
| PRIORITY APPLN. INFO.: |      |          | JP 1989-206276  | 19890809 |

OTHER SOURCE(S): MARPAT 115:153116

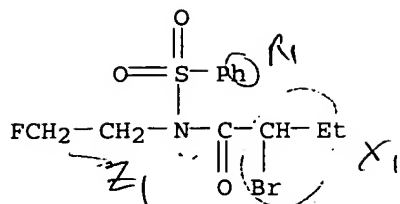
AB R1SO2NR2CH2CH2F [I; R1 = C1-4 alkyl, haloalkyl, thienyl, C6H4Xm; R2 = C1-4 alkyl, alkynyl, haloalkyl, cycloalkyl, OCH2Ph, SO2Ph, COR3; R3 = C1-6 alkyl, alkynyl, haloalkyl, (haloalkyl)cycloalkyl, (halo)benzyl, C1-6 alkoxy, alkenyloxy, OPh, NHPh, (halo)pyridyl, naphthyl, furyl, C6H4Yn; X = H, halo, C1-4 alkyl, haloalkyl, alkoxy, nitro, cyano; Y = X, amino; m, n = 1-2] are prepared as insecticides or acaricides. N-(2-Fluoroethyl)-3-toluenesulfonamide (preparation given) in THF was treated with NaH at room temperature for 1 h, mixed with BzCl, and stirred at room temperature overnight to give 76.4% I (R1 = 3-MeC6H4, R2 = Bz), which was applied to cucumber at 4 ppm to control Aphis gossypii with 100% mortality.

IT 136160-59-3P 136161-05-2P 136161-06-3P  
 136161-17-6P 136161-20-1P 136161-21-2P  
 136161-22-3P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as insecticide and acaricide)

RN 136160-59-3 CAPLUS  
 CN Butanamide, 2-bromo-N-(2-fluoroethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX

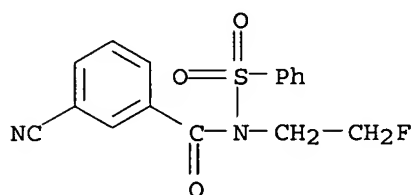


NAME)



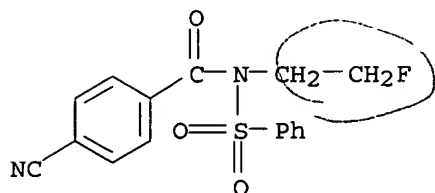
RN 136161-05-2 CAPLUS

CN Benzamide, 3-cyano-N-(2-fluoroethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



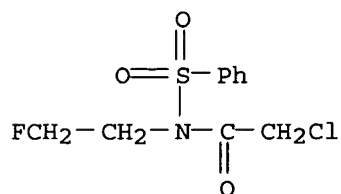
RN 136161-06-3 CAPLUS

CN Benzamide, 4-cyano-N-(2-fluoroethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



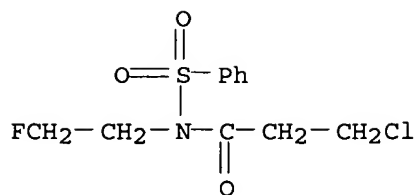
RN 136161-17-6 CAPLUS

CN Acetamide, 2-chloro-N-(2-fluoroethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

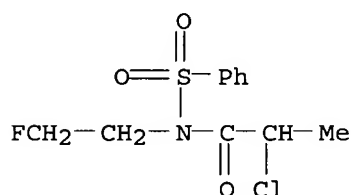


RN 136161-20-1 CAPLUS

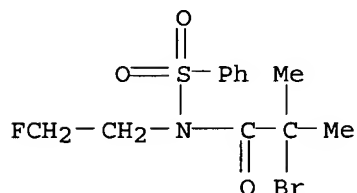
CN Propanamide, 3-chloro-N-(2-fluoroethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 136161-21-2 CAPLUS  
 CN Propanamide, 2-chloro-N-(2-fluoroethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 136161-22-3 CAPLUS  
 CN Propanamide, 2-bromo-N-(2-fluoroethyl)-2-methyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



L69 ANSWER 68 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1991:491759 CAPLUS  
 DOCUMENT NUMBER: 115:91759  
 TITLE: New methods for the synthesis of N-acylsulfonamides  
 AUTHOR(S): Lukanov, L. K.; Venkov, A. P.  
 CORPORATE SOURCE: Bulg.  
 SOURCE: Nauchni Trudove - Plovdivski Universitet Paisii  
 Khilendarski (1989), Volume Date 1988, 26(5, Khim.),  
 23-35  
 CODEN: NTPUB6; ISSN: 0369-6227  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Bulgarian  
 OTHER SOURCE(S): CASREACT 115:91759

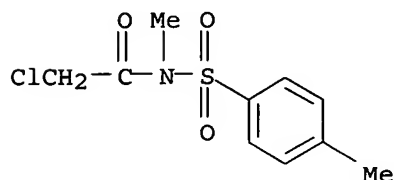
AB Acylating RSO<sub>2</sub>NHR<sub>1</sub> [I; R = Ph, 4-tolyl, PhCH<sub>2</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>; R<sub>1</sub> = CH<sub>2</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>3</sub>(OMe)<sub>2-3,4</sub>, CH<sub>2</sub>Ph, CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Cl-4, CH<sub>2</sub>CH<sub>2</sub>Ph, Me, H] with R<sub>2</sub>CO<sub>2</sub>H [R<sub>2</sub> = Me, Ph, ClCH<sub>2</sub>, 3,4-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CH<sub>2</sub>] in refluxing CH<sub>2</sub>Cl<sub>2</sub> containing PCl<sub>3</sub> or SOCl<sub>2</sub> gave 16 RSO<sub>2</sub>NR<sub>1</sub>COR<sub>2</sub> (II) in 50-88% yield. I (R = same aryl; R<sub>1</sub> = Ph, C<sub>6</sub>H<sub>4</sub>Cl-4, C<sub>6</sub>H<sub>4</sub>OMe-4, 2,6-xylyl, C<sub>6</sub>H<sub>3</sub>EtMe-2,6, C<sub>6</sub>H<sub>3</sub>Et<sub>2</sub>-2,6) were acetylated with refluxing 20:1 Ac<sub>2</sub>O-HCO<sub>2</sub>H to give 10 corresponding II in 71-97% yield.

IT 38994-94-4P 135489-94-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

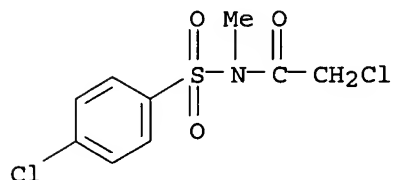
RN 38994-94-4 CAPLUS

CN Acetamide, 2-chloro-N-methyl-N-[(4-methylphenyl)sulfonyl]- (9CI) (CA  
INDEX NAME)



RN 135489-94-0 CAPLUS

CN Acetamide, 2-chloro-N-[(4-chlorophenyl)sulfonyl]-N-methyl- (9CI) (CA  
INDEX NAME)



L69 ANSWER 69 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:491333 CAPLUS

DOCUMENT NUMBER: 115:91333

TITLE: Palladium catalyzed tandem cyclization-anion capture  
processes initiated by alkyl- and  $\pi$ -allyl-palladium  
species

AUTHOR(S): Grigg, Ronald; Sukirthalingam, Sukanthini; Sridharan,  
Visuvanathar

CORPORATE SOURCE: Sch. Chem., Leeds Univ., Leeds, LS2 9JT, UK

SOURCE: Tetrahedron Letters (1991), 32(22), 2545-8

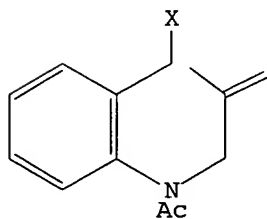
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

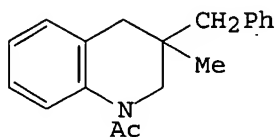
LANGUAGE: English

OTHER SOURCE(S): CASREACT 115:91333

GI



I



II

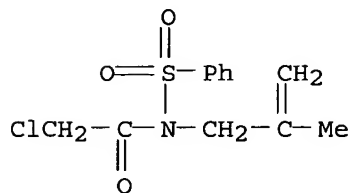
AB Palladium-catalyzed tandem cyclization-anion capture processes initiated by oxidative addition of benzylic or allylic halides or acetates to Pd occur regio- and stereospecifically in good yield. Examples of anion capture involving formate (H-) and organotin, -zinc, and -boron species are described. Thus, treatment of benzylic halides I (X = Cl and Br) with NaBPh<sub>4</sub> in the presence of Pd acetate afforded 69% cyclization product II.

IT 134836-70-7 134836-80-9 134855-36-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(attempted cyclization-anion capture reaction of)

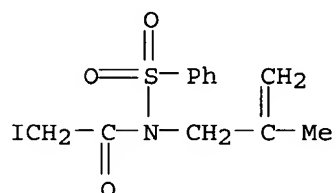
RN 134836-70-7 CAPLUS

CN Acetamide, 2-chloro-N-(2-methyl-2-propenyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



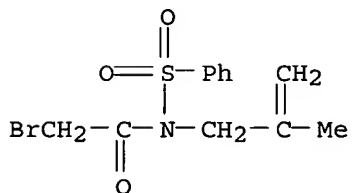
RN 134836-80-9 CAPLUS

CN Acetamide, 2-iodo-N-(2-methyl-2-propenyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 134855-36-0 CAPLUS

CN Acetamide, 2-bromo-N-(2-methyl-2-propenyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



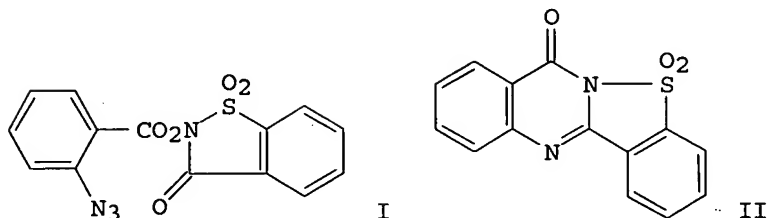
L69 ANSWER 70 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:122256 CAPLUS

DOCUMENT NUMBER: 114:122256

TITLE: Heterocycles by intramolecular aza-Wittig reactions of iminophosphoranes obtained from 2-azidobenzoyl- and 2-azidobenzylidene derivatives

AUTHOR(S): Luheshi, Abdul Bassett N.; Salem, Salem M.; Smalley, Robert K.; Kennewell, Peter D.; Westwood, Robert  
 CORPORATE SOURCE: Dep. Chem. Appl. Chem., Univ. Salford, Salford, M5 4WT, UK  
 SOURCE: Tetrahedron Letters (1990), 31(45), 6561-4  
 CODEN: TELEAY; ISSN: 0040-4039  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:122256  
 GI



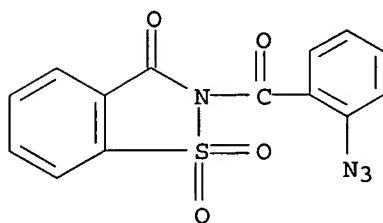
AB The use of iminophosphoranes in intramol. aza-Wittig reactions to prepare pyrrolo[1,2-a]benzimidazoles, fused quinazolinones, quinolines, and an isoindolo[1,3,4]benzotriazepinone is reported. Thus, (azidobenzoyl)oxobenzoisothiazoline dioxide I was treated with (EtO)<sub>3</sub>P to give 88% oxobenzoisothiazoloquinazoline dioxide II.

IT 132416-64-9P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (generation of iminophosphorane and intramol. aza-Wittig reaction of)

RN 132416-64-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(2-azidobenzoyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



L69 ANSWER 71 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:108609 CAPLUS

DOCUMENT NUMBER: 112:108609

TITLE: Electrophotography-type lithographic master plates

INVENTOR(S): Kato, Eiichi; Ishii, Kazuo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 01114861            | A2   | 19890508 | JP 1987-270309  | 19871028 |
| PRIORITY APPLN. INFO.: |      |          | JP 1987-270309  | 19871028 |

AB In the lithog. master plates using electrophotog. photoreceptors comprising a conductive support and  $\geq 1$  layers containing ZnO and a binder resin, the binder resin has substituent groups of the formulas CONRSO<sub>2</sub>R<sub>1</sub> and/or CONR<sub>2</sub>OSO<sub>2</sub>R<sub>3</sub> (R, R<sub>2</sub> = H, aliphatic; R<sub>1</sub>, R<sub>3</sub> = aliphatic, aryl). The lithog. master plates show improved electrostatic properties and stain-free background. Thus, a support was coated with a composition containing Bu

methacrylate-CH<sub>2</sub>:CMeCONHSO<sub>2</sub>C<sub>6</sub>H<sub>13</sub> copolymer, acrylic acid-Et methacrylate copolymer, ZnO, rose bengal, and phthalic anhydride to give a photoreceptor. Resulting master plates for offset printing gave 104 good prints.

IT 125566-77-0 125566-79-2

RL: USES (Uses)

(binder, electrophotog.-type lithog. master plate photoconductive layer containing, for good electrostatic properties and stain-free background)

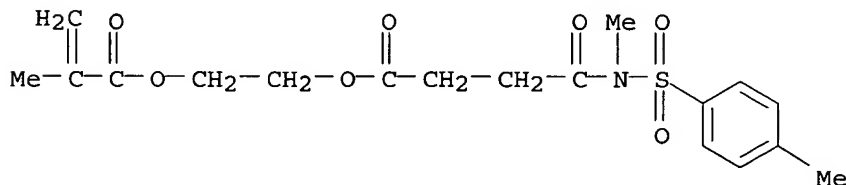
RN 125566-77-0 CAPLUS

CN Butanoic acid, 4-[methyl[(4-methylphenyl)sulfonyl]amino]-4-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 125566-76-9

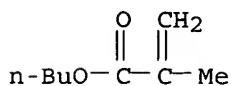
CMF C18 H23 N O7 S



CM 2

CRN 97-88-1

CMF C8 H14 O2

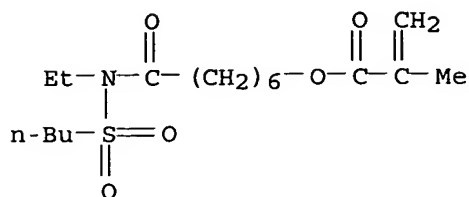


RN 125566-79-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 7-[(butylsulfonyl)ethylamino]-7-oxoheptyl ester, polymer with phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

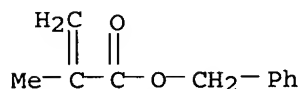
CM 1

CRN 125566-78-1  
CMF C17 H31 N O5 S

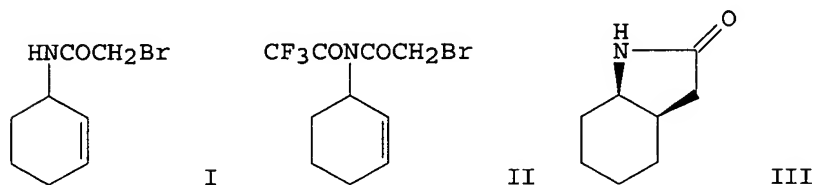


CM 2

CRN 2495-37-6  
CMF C11 H12 O2

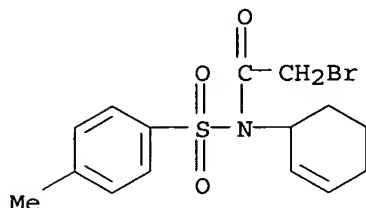


L69 ANSWER 72 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1990:55537 CAPLUS  
DOCUMENT NUMBER: 112:55537  
TITLE: Radical cyclization of allylic haloacetamides. A route to cis-fused 2-pyrrolidones and piperidones  
AUTHOR(S): Stork, Gilbert; Mah, Robert  
CORPORATE SOURCE: Dep. Chem., Columbia Univ., New York, NY, 10027, USA  
SOURCE: Heterocycles (1989), 28(2), 723-7  
CODEN: HTCYAM; ISSN: 0385-5414  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 112:55537  
GI



AB N-Protected allylic haloacetamides undergo radical cyclization to produce N-protected lactams. Thus, cyclohexenyl bromoacetamide I was treated with (F<sub>3</sub>CCO)<sub>2</sub>O in the presence of poly(4-vinylpyridine) to give 95% bromo imide II, which was cyclized by treatment with Bu<sub>3</sub>SnH-AIBN in C<sub>6</sub>H<sub>6</sub> and deprotected with aqueous KF to give the fused pyrrolidone III in 80-90% yield from I. A small quantity of debrominated I was also obtained.

IT 124706-15-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and radical cyclization of)  
 RN 124706-15-6 CAPLUS  
 CN Acetamide, 2-bromo-N-2-cyclohexen-1-yl-N-[(4-methylphenyl)sulfonyl]- (9CI)  
 (CA INDEX NAME)



L69 ANSWER 73 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1989:622010 CAPLUS  
 DOCUMENT NUMBER: 111:222010  
 TITLE: Antistatic photographic recording materials  
 INVENTOR(S): Hesse, Konrad; Oezelsel, Mehmet Oezbay  
 PATENT ASSIGNEE(S): Du Pont de Nemours (Deutschland) G.m.b.H., Fed. Rep.  
 Ger.  
 SOURCE: Eur. Pat. Appl., 9 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | KIND | DATE     | APPLICATION NO. | DATE       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|------------|
| EP 319951                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | A1   | 19890614 | EP 1988-120443  | 19881207   |
| R: BE, CH, DE, ES, FR, GB, IT, LI, SE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |          |                 |            |
| PRIORITY APPLN. INFO.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |          | DE 1987-3741355 | A 19871207 |
| AB Triboelec. charge formation in photog. materials for use in mech.<br>transport apparatus is decreased by using a combination of a F-containing<br>anionic<br>surfactant, a nonionic surfactant with oxyalkyl units, and a nonionic<br>surfactant with oxyalkyl units and F groups in the coatings of the<br>materials. Thus, a double-sided radiog. film with C8F17SO3-H.N+Et4 and<br>C10H21SO2NHCH2CO2K in the gelatin-Ag(Br,I) emulsion layer and<br>C8F17(CH2CH2O)6H in the protective layer was tested in a transport apparatus<br>with hard rubber and eloxated Al rollers to show a low triboelec.<br>charging. |      |          |                 |            |

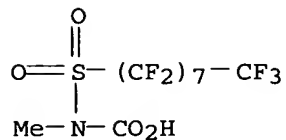
IT 123748-42-5  
 RL: USES (Uses)  
 (surfactant, photog. materials containing, for improved antistatic  
 properties)  
 RN 123748-42-5 CAPLUS  
 CN Carbamic acid, [(heptadecafluorooctyl)sulfonyl]methyl-, polymer with  
 1,4-butanediol,  $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) and  
 $\alpha$ -hydro- $\omega$ -hydroxypoly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA  
 INDEX NAME)



CM 1

CRN 123748-41-4

CMF C10 H4 F17 N O4 S

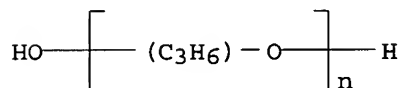


CM 2

CRN 25322-69-4

CMF (C3 H6 O)<sub>n</sub> H2 O

CCI IDS, PMS

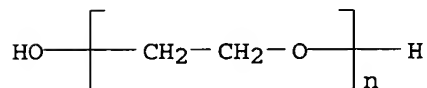


CM 3

CRN 25322-68-3

CMF (C2 H4 O)<sub>n</sub> H2 O

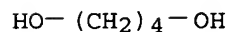
CCI PMS



CM 4

CRN 110-63-4

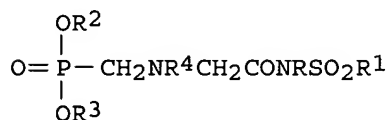
CMF C4 H10 O2



L69 ANSWER 74 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1989:115117 CAPLUS  
 DOCUMENT NUMBER: 110:115117  
 TITLE: Preparation of dialkyl aminomethanephosphonate derivatives as herbicide intermediates  
 INVENTOR(S): Corbet, Jean Pierre; Mulhauser, Michel  
 PATENT ASSIGNEE(S): Rhone-Poulenc Agrochimie, Fr.  
 SOURCE: Fr. Demande, 11 pp.  
 CODEN: FRXXBL

DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                            | KIND | DATE     | APPLICATION NO.   | DATE       |
|-------------------------------------------------------|------|----------|-------------------|------------|
| FR 2608609                                            | A1   | 19880624 | FR 1986-18308     | 19861218   |
| FR 2608609                                            | B1   | 19890602 |                   |            |
| IL 84482                                              | A1   | 19921115 | IL 1987-84482     | 19871116   |
| AU 8782618                                            | A1   | 19880623 | AU 1987-82618     | 19871216   |
| AU 599729                                             | B2   | 19900726 |                   |            |
| CA 1297493                                            | A1   | 19920317 | CA 1987-554483    | 19871216   |
| DK 8706650                                            | A    | 19880619 | DK 1987-6650      | 19871217   |
| CN 87105951                                           | A    | 19880629 | CN 1987-105951    | 19871217   |
| JP 63165391                                           | A2   | 19880708 | JP 1987-320034    | 19871217   |
| BR 8706887                                            | A    | 19880726 | BR 1987-6887      | 19871217   |
| EP 275804                                             | A1   | 19880727 | EP 1987-420345    | 19871217   |
| EP 275804                                             | B1   | 19911002 |                   |            |
| R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                   |            |
| ZA 8709478                                            | A    | 19880727 | ZA 1987-9478      | 19871217   |
| DD 264921                                             | A5   | 19890215 | DD 1987-310642    | 19871217   |
| HU 48634                                              | A2   | 19890628 | HU 1987-5755      | 19871217   |
| HU 202881                                             | B    | 19910429 |                   |            |
| AT 67998                                              | E    | 19911015 | AT 1987-420345    | 19871217   |
| PRIORITY APPLN. INFO.:                                |      |          | FR 1986-18308     | A 19861218 |
|                                                       |      |          | EP 1987-420345    | A 19871217 |
| OTHER SOURCE(S):                                      |      |          | MARPAT 110:115117 |            |
| GI                                                    |      |          |                   |            |



I

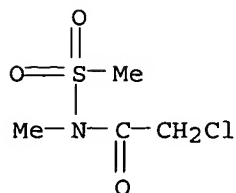
AB The title compds. I [R1 = hydrocarbyl, especially (substituted) alkyl, aryl, cycloalkyl; R = H, R1, C1-4 alkyl; R2, R3 = (substituted) alkyl, aryl, aralkyl, or R2R3 = divalent entity; R4 = ArR5R6C; Ar = (substituted) aromatic group; R5, R6 = H, alkyl, etc.], useful as intermediates for herbicides, were prepared. A mixture of diisopropyl N-benzylaminomethanephosphonate and N-methyl-N-methylsulfonylchloroacetamide was heated at 80° to give 92.4% I (R2 = R3 = CHMe2, R4 = PhCH2, R = R1 = Me).

IT **38994-88-6**

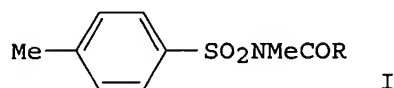
RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, in preparation of herbicide intermediate)

RN 38994-88-6 CAPLUS

CN Acetamide, 2-chloro-N-methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



L69 ANSWER 75 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1989:63579 CAPLUS  
 DOCUMENT NUMBER: 110:63579  
 TITLE: Prodrug forms for the sulfonamide group. II.  
 Water-soluble amino acid derivatives of  
 N-methylsulfonamides as possible prodrugs  
 AUTHOR(S): Larsen, Jorn Drustrup; Bundgaard, Hans; Lee, Vincent  
 H. L.  
 CORPORATE SOURCE: Dep. Pharm. Chem., R. Dan. Sch. Pharm., Copenhagen,  
 Den.  
 SOURCE: International Journal of Pharmaceutics (1988),  
 47(1-3), 103-10  
 CODEN: IJPHDE; ISSN: 0378-5173  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



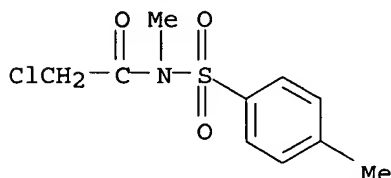
AB Various N-acyl derivs. (I, R = Me, Ph, CH<sub>2</sub>NEt<sub>2</sub>, or morpholinomethyl) of the model sulfonamide N-methyl-p-toluenesulfonamide were synthesized and evaluated as potential prodrug forms for the sulfonamide group occurring in e.g. carbonic anhydrase inhibitors. The kinetics of hydrolysis of the derivs. were determined at 37° in the pH range 0-12 and in the presence of human plasma. Maximum stability was achieved at pH .apprx.4. The N-acyl compds. were readily hydrolyzed enzymically to yield the parent sulfonamide in quant. amts. The derivs. with an ionizable amino function in the acyl moiety possess a high water-solubility as well as adequate lipophilicity at physiol. pH. Since various N-methylsulfonamides are known to undergo demethylation in vivo, a promising prodrug approach for a primary sulfonamide may be N-acylation of the corresponding N-methylsulfonamide.

IT 38994-94-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and amine substitution of)

RN 38994-94-4 CAPLUS

CN Acetamide, 2-chloro-N-methyl-N-[(4-methylphenyl)sulfonyl]- (9CI) (CA  
 INDEX NAME)

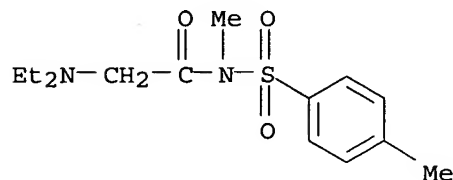


IT 118625-26-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and hydrolysis and lipophilicity of, as prodrug)

RN 118625-26-6 CAPLUS

CN Acetamide, 2-(diethylamino)-N-methyl-N-[(4-methylphenyl)sulfonyl]- (9CI)  
(CA INDEX NAME)

L69 ANSWER 76 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:57390 CAPLUS

DOCUMENT NUMBER: 110:57390

TITLE: Synthesis and biological activity of some new xanthotoxin derivatives

AUTHOR(S): El-Sharief, A. M. Sh.; Bedair, A. H.; El-Maghraby, A. A.; Ammar, Y. A.

CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Cairo, Egypt

SOURCE: Journal of the Indian Chemical Society (1988), 65(6), 422-6

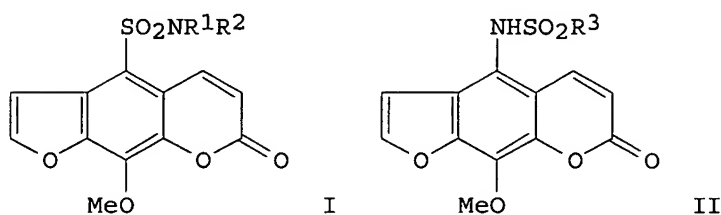
CODEN: JICSAH; ISSN: 0019-4522

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 110:57390

GI



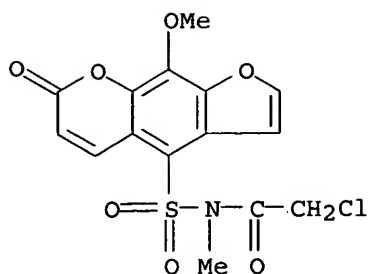
AB A xanthotoxinsulfonyl chloride was treated with amines to give sulfonamides I ( $R_1 = \text{H, acyl, alkyl}$ ;  $R_2 = \text{C}_6\text{H}_4\text{SO}_2\text{NH}_2$ , substituted sulfamoylphenyl,  $\text{C}_6\text{H}_4\text{CO}_2\text{H}$ , carbalkoxyphenyl, substituted carbamoylphenyl,  $\text{C}_6\text{H}_4\text{OH}$ , alkoxyphenyl, acyloxyphenyl,  $\text{H, alkyl, acyl}$ , substituted anilinophenyl, heteroaryl). Also prepared were aminoxanthotoxin derivs. II [ $R_3 = \text{C}_6\text{H}_4\text{CO}_2\text{H, C}_6\text{H}_3(\text{CO}_2\text{H})\text{OH, C}_6\text{H}_4\text{NHAc}$ ]. Some I and II showed bactericidal activity.

IT 92831-61-3P 92831-63-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

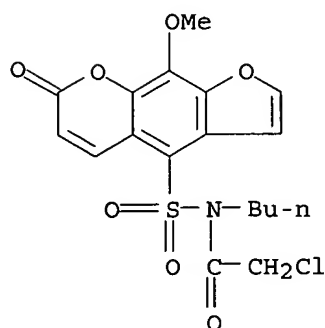
RN 92831-61-3 CAPLUS

CN Acetamide, 2-chloro-N-[(9-methoxy-7-oxo-7H-furo[3,2-g][1]benzopyran-4-yl)sulfonyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 92831-63-5 CAPLUS

CN Acetamide, N-butyl-2-chloro-N-[(9-methoxy-7-oxo-7H-furo[3,2-g][1]benzopyran-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)



L69 ANSWER 77 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1988:488080 CAPLUS

DOCUMENT NUMBER: 109:88080

TITLE: The herbicidal activity of 1-substituted 1-phenylureas

AUTHOR(S): Barnes, Keith F.; Browning, Ian R.; Clark, Nigel G.

CORPORATE SOURCE: Wye Coll., Univ. London, Ashford/Kent, TN25 5AH, UK

SOURCE: Pesticide Science (1988), 23(1), 83-91

CODEN: PSSCBG; ISSN: 0031-613X

DOCUMENT TYPE: Journal

LANGUAGE: English

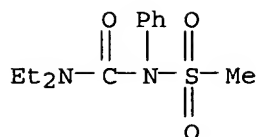
AB A selection of 1,1-dialkyl-3-phenylureas, addnl. substituted in the 3-position by methanesulfonyl, cyano, alkoxy carbonyl or Me, were synthesized and assessed for pre- and post-emergence herbicidal activity against a variety of monocotyledonous and dicotyledonous weed species. The range of activities is compared with those of the structurally-related com. herbicides, fenuron, monuron and diuron, into which the novel compds. could be metabolized (lethal synthesis).

IT 115956-28-0P 115973-65-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicidal activity of)

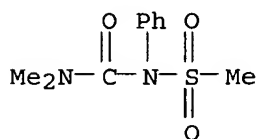
RN 115956-28-0 CAPLUS

CN Methanesulfonamide, N-[(diethylamino)carbonyl]-N-phenyl- (9CI) (CA INDEX NAME)



RN 115973-65-4 CAPLUS

CN Methanesulfonamide, N-[(dimethylamino)carbonyl]-N-phenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 78 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1987:119415 CAPLUS

DOCUMENT NUMBER: 106:119415

TITLE: Alkyl shifts in 1,4-dipoles from tosyl  
iso(thio)cyanate and imido(thio)carbonates or isoureas  
AUTHOR(S): Schaumann, Ernst; Dietz, Joerg; Kausch, Erwin;  
Schmerse, Gerd C.

CORPORATE SOURCE: Inst. Org. Chem., Univ. Hamburg, Hamburg, D-2000/13,  
Fed. Rep. Ger.

SOURCE: Chemische Berichte (1987), 120(3), 339-44  
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 106:119415

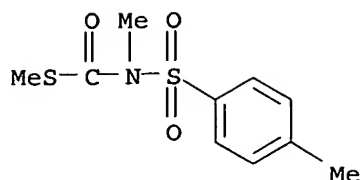
AB Alkyl shifts from O to N are observed in dipoles from tosyl isocyanate (TosNCO) and imido(thio)carbonates  $\text{RN}:\text{C}(\text{OR}_1)\text{XR}_2$  (I; X = O, R = Me, Ph, cyclohexyl, R1, R2 = Me, Et, Ph; X = S, R = Me, R1, R2 = Me, Et) to give (thio)allophanates  $\text{TosNR}_1\text{CONRC}(\text{O})\text{XR}_2$ . Similarly, addition of TosNCS to  $\text{MeN}:\text{C}(\text{OMe})\text{NMe}_2$  afforded  $\text{TosN}:\text{C}(\text{SMe})\text{NMeCONMe}_2$ , the product of an O → S shift. A crossover experiment involving TosNCO and I (R = Me, R1 = Me, R2 = Et; R1 = Et; R2 = Me) gave four products  $\text{TosNR}_1\text{CONMeC}(\text{O})\text{SR}_2$ , proving the intermol. nature of the rearrangement. However, reactions of TosNCO and isoureas or TosNCS and I stopped short at the dipole stage.

IT 106115-22-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 106115-22-4 CAPLUS

CN Carbamothioic acid, methyl[(4-methylphenyl)sulfonyl]-, S-methyl ester  
(9CI) (CA INDEX NAME)



L69 ANSWER 79 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1987:84842 CAPLUS  
 DOCUMENT NUMBER: 106:84842  
 TITLE: N-sulfonyl-N-(phosphonomethylglycyl)amines  
 INVENTOR(S): Veracini, Serge; Bres, Herve  
 PATENT ASSIGNEE(S): Rhone Poulenc Agrochimie, Fr.  
 SOURCE: Fr. Demande, 7 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE       |
|-----------------------------------------------|------|----------|-----------------|------------|
| FR 2575161                                    | A1   | 19860627 | FR 1984-20151   | 19841226   |
| FR 2575161                                    | B1   | 19890331 |                 |            |
| FI 8505066                                    | A    | 19860627 | FI 1985-5066    | 19851218   |
| AU 8551519                                    | A1   | 19860703 | AU 1985-51519   | 19851220   |
| AU 573410                                     | B2   | 19880609 |                 |            |
| ZA 8509769                                    | A    | 19860924 | ZA 1985-9769    | 19851220   |
| CA 1244461                                    | A1   | 19881108 | CA 1985-498283  | 19851220   |
| DK 8506035                                    | A    | 19860627 | DK 1985-6035    | 19851223   |
| NO 8505244                                    | A    | 19860627 | NO 1985-5244    | 19851223   |
| HU 39751                                      | A2   | 19861029 | HU 1985-4956    | 19851223   |
| HU 199855                                     | B    | 19900328 |                 |            |
| DD 251135                                     | A5   | 19871104 | DD 1985-285097  | 19851223   |
| JP 61158991                                   | A2   | 19860718 | JP 1985-291796  | 19851224   |
| EP 189725                                     | A1   | 19860806 | EP 1985-420242  | 19851224   |
| EP 189725                                     | B1   | 19890308 |                 |            |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |            |
| BR 8506478                                    | A    | 19860902 | BR 1985-6478    | 19851224   |
| AT 41153                                      | E    | 19890315 | AT 1985-420242  | 19851224   |
| IL 77445                                      | A1   | 19890910 | IL 1985-77445   | 19851224   |
| CN 85109729                                   | A    | 19860709 | CN 1985-109729  | 19851225   |
| ES 550424                                     | A1   | 19870601 | ES 1985-550424  | 19851226   |
| PRIORITY APPLN. INFO.:                        |      |          | FR 1984-20151   | A 19841226 |
|                                               |      |          | EP 1985-420242  | A 19851224 |

OTHER SOURCE(S): CASREACT 106:84842

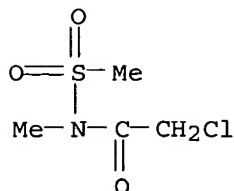
AB (R2O)(R3O)P(O)CH2NR4CH2CONR5(SO2R1) [I; R1 = (substituted)hydrocarbyl; R2, R3 = (substituted) alkyl, aryl or aralkyl; R4 = (substituted) aralkyl; R5 = H, hydrocarbyl], useful as herbicides (no data), are prepared Thus, 7.78 mmol (EtO)2P(O)CH2NHCH2Ph in MeCN was treated with 7.78 mmol ClCH2CONMe(SO2Me) at 80° in the presence of K2CO3 to give 60% I (R1 = R5 = Me, R2 = R3 = Et, R4 = CH2Ph).

IT 38994-88-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with phosphonomethylbenzylamine)

RN 38994-88-6 CAPLUS

CN Acetamide, 2-chloro-N-methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



L69 ANSWER 80 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:442641 CAPLUS

DOCUMENT NUMBER: 105:42641

TITLE: Herbicidal tetrahydrophthalimides

INVENTOR(S): Naohara, Tetsuo; Natsume, Fumitsugu; Yotsuya, Toyohiko; Suzuki, Shigeru; Suzuki, Seiichi; Ikeda, Osamu

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

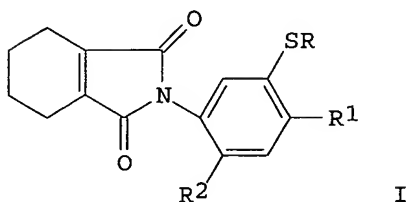
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                   | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------------|------|----------|-----------------|----------|
| JP 61040261                  | A2   | 19860226 | JP 1984-162014  | 19840801 |
| PRIORITY APPLN. INFO.:<br>GI |      |          | JP 1984-162014  | 19840801 |



AB Title compds. I (R = H, haloalkyl, cyanoalkyl, alkoxyalkyl, alkoxyalkoxyalkyl, alkoxyalkoxyalkoxyalkyl, etc.; R1 = halo; R2 = H, halo) were prepared Thus, refluxing 5.23 g 4-chloro-2-fluoro-5-[1-(dimethylcarbamoyl)propylthio]aniline with 3.01 g 3,4,5,6-tetrahydrophthalic anhydride in HOAc for 3 h gave 6.59 g I (R = Me2NCOCH<sub>2</sub>Et, R1 = Cl, R2 = F). The latter compound showed herbicidal activity at 2.5 g/are.

IT 103087-68-9P

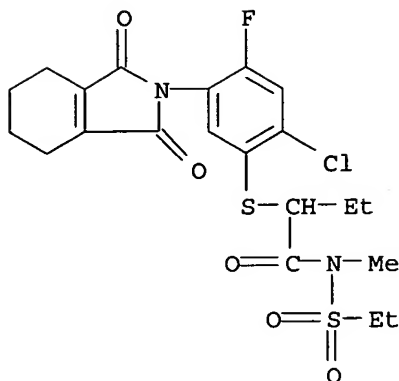
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

RN 103087-68-9 CAPLUS

CN Butanamide, 2-[2-chloro-4-fluoro-5-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-



isoindol-2-yl)phenyl]thio]-N-(ethylsulfonyl)-N-methyl- (9CI) (CA INDEX NAME)



L69 ANSWER 81 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:424260 CAPLUS

DOCUMENT NUMBER: 105:24260

TITLE: Acylated saccharin derivatives.

INVENTOR(S): Salzburg, Herbert; Hajek, Manfred; Hagemann, Hermann; Kuehle, Engelbert; Fuehrer, Wolfgang; Haenssler, Gerd; Brandes, Wilhelm; Reinecke, Paul Dr

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 35 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

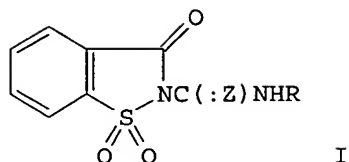
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                                | KIND | DATE     | APPLICATION NO. | DATE       |
|-------------------------------------------|------|----------|-----------------|------------|
| DE 3433391                                | A1   | 19860320 | DE 1984-3433391 | 19840912   |
| EP 177740                                 | A1   | 19860416 | EP 1985-110995  | 19850831   |
| EP 177740                                 | B1   | 19880928 |                 |            |
| R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE |      |          |                 |            |
| AT 37543                                  | E    | 19881015 | AT 1985-110995  | 19850831   |
| US 4713389                                | A    | 19871215 | US 1985-774271  | 19850910   |
| DK 8504133                                | A    | 19860313 | DK 1985-4133    | 19850911   |
| ES 546877                                 | A1   | 19860316 | ES 1985-546877  | 19850911   |
| AU 8547384                                | A1   | 19860320 | AU 1985-47384   | 19850911   |
| AU 571734                                 | B2   | 19880421 |                 |            |
| JP 61068477                               | A2   | 19860408 | JP 1985-199614  | 19850911   |
| ZA 8506951                                | A    | 19860430 | ZA 1985-6951    | 19850911   |
| BR 8504387                                | A    | 19860708 | BR 1985-4387    | 19850911   |
| DD 239516                                 | A5   | 19861001 | DD 1985-280522  | 19850911   |
| HU 39966                                  | A2   | 19861128 | HU 1985-3430    | 19850911   |
| PRIORITY APPLN. INFO.:                    |      |          | DE 1984-3433391 | A 19840912 |
|                                           |      |          | EP 1985-110995  | A 19850831 |

OTHER SOURCE(S): CASREACT 105:24260

GI



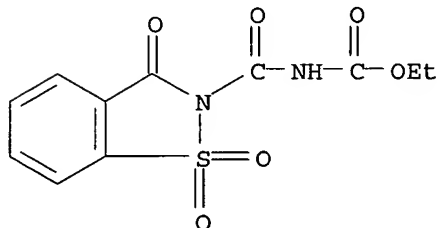
AB Title compds. I [R = COR<sub>1</sub>, SO<sub>2</sub>OR<sub>2</sub>; R<sub>1</sub> = alkyl, haloalkyl, alkoxy, (un)substituted aryl, etc.; R<sub>2</sub> = alkyl, phenyl; Z = O, S] are prepared as bactericides and fungicides. Thus, ethoxycarbonyl isocyanate reacted with saccharin in Me<sub>2</sub>CO, in the presence of Et<sub>3</sub>N, to give I (R = EtO<sub>2</sub>C, Z = O) (II). II gave better protection of rice against *Pyricularia oryzae* than did the standard 3-allyloxy-1,2-benzisothiazole 1,1-dioxide.

IT 102823-02-9P 102823-03-0P 102823-05-2P  
 102823-06-3P 102823-07-4P 102823-08-5P  
 102823-09-6P 102823-11-0P 102823-12-1P  
 102823-13-2P 102823-14-3P 102823-15-4P  
 102823-17-6P 102823-20-1P 102823-21-2P  
 102823-24-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as bactericide and fungicide)

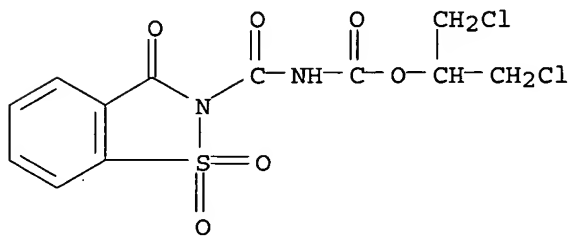
RN 102823-02-9 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



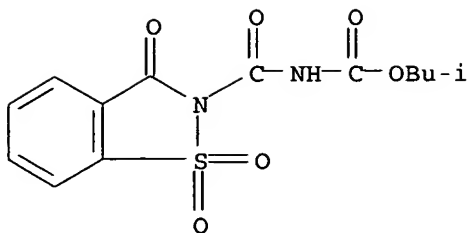
RN 102823-03-0 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-chloro-1-(chloromethyl)ethyl ester (9CI) (CA INDEX NAME)



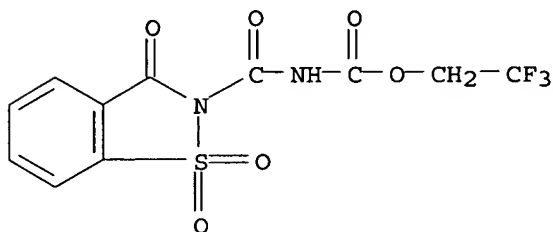
RN 102823-05-2 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



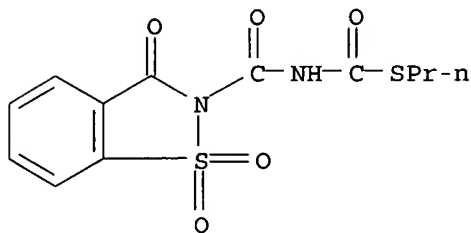
RN 102823-06-3 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2,2,2-trifluoroethyl ester (9CI) (CA INDEX NAME)



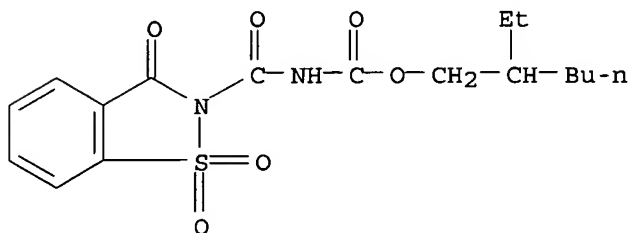
RN 102823-07-4 CAPLUS

CN Carbamothioic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, S-propyl ester (9CI) (CA INDEX NAME)



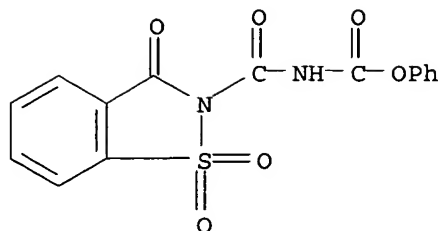
RN 102823-08-5 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)



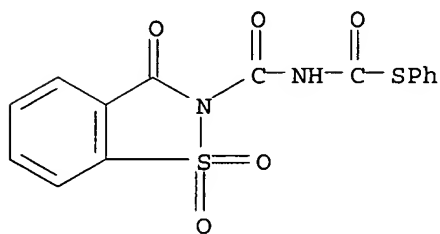
RN 102823-09-6 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, phenyl ester (9CI) (CA INDEX NAME)



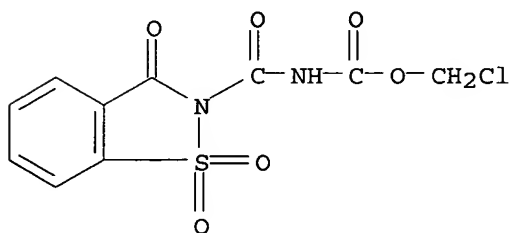
RN 102823-11-0 CAPLUS

CN Carbamothioic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, S-phenyl ester (9CI) (CA INDEX NAME)



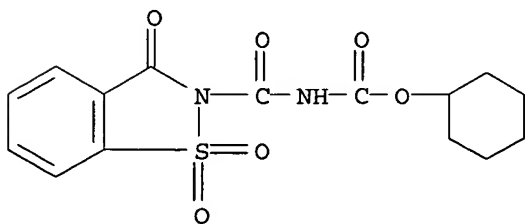
RN 102823-12-1 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, chloromethyl ester (9CI) (CA INDEX NAME)



RN 102823-13-2 CAPLUS

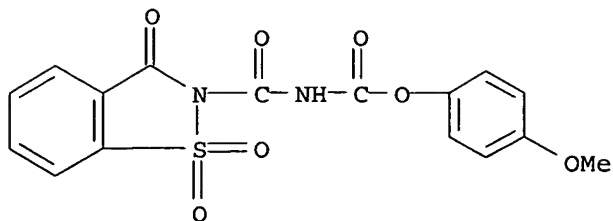
CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, cyclohexyl ester (9CI) (CA INDEX NAME)



RN 102823-14-3 CAPLUS

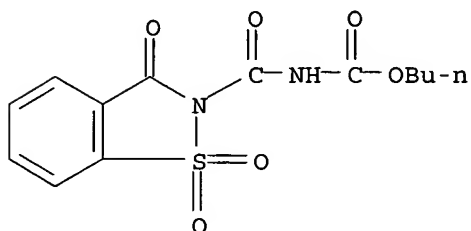
CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-,

4-methoxyphenyl ester (9CI) (CA INDEX NAME)



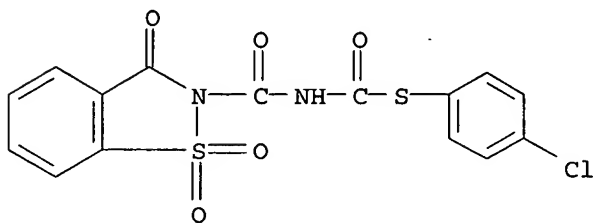
RN 102823-15-4 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, butyl ester (9CI) (CA INDEX NAME)



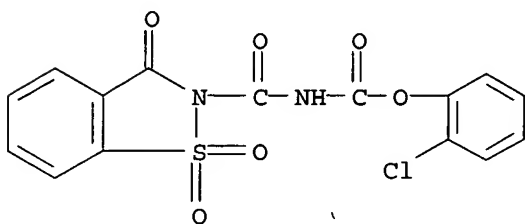
RN 102823-17-6 CAPLUS

CN Carbamothioic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, S-(4-chlorophenyl) ester (9CI) (CA INDEX NAME)



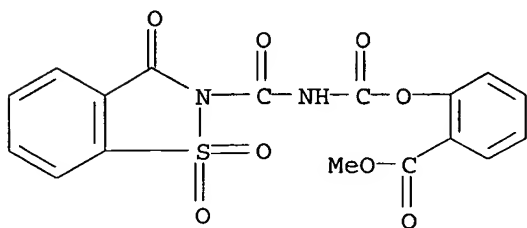
RN 102823-20-1 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-chlorophenyl ester (9CI) (CA INDEX NAME)



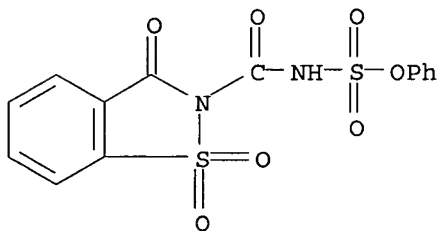
RN 102823-21-2 CAPLUS

CN Benzoic acid, 2-[[[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]amino]carbonyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 102823-24-5 CAPLUS

CN Sulfamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, phenyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 82 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:591462 CAPLUS

DOCUMENT NUMBER: 101:191462

TITLE: Some new xanthotoxin derivatives with expected biological activity

AUTHOR(S): El-Sharief, A. M. S.; Bedair, A. H.; El-Maghraby, A. A.; Ammar, Y. A.

CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Nasr, Egypt

SOURCE: Egyptian Journal of Chemistry (1983), 26(5), 379-88

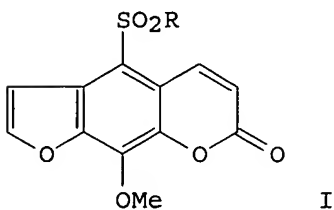
CODEN: EGJCA3; ISSN: 0367-0422

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 101:191462

GI



AB Xanthotoxin-4-sulfonyl chloride (I, R = Cl) was treated with some sulfa derivs. to give the amides and with 4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H to give I (R = NHC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-4) which was converted to esters and primary and secondary

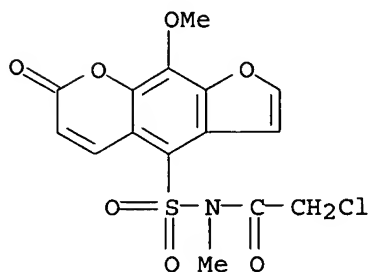
amides. 4-PhNHC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> was treated with I (R = Cl) to give I (R = NHC<sub>6</sub>H<sub>4</sub>NHPh-4) which was converted to acridine and phenothiazine derivs. The sulfonic acid ester I (R = OC<sub>6</sub>H<sub>4</sub>CHO-4) was prepared from I (R = Cl) and 4-HOC<sub>6</sub>H<sub>4</sub>CHO and was treated with hippuric acid to give the oxazolin-5-one derivative. Another type of xanthotoxinsulfonamides were prepared from 4-aminoxanthotoxin and sulfonyl chlorides. Some of the compds. have bactericidal and fungicidal activity.

IT 92831-61-3P 92831-63-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

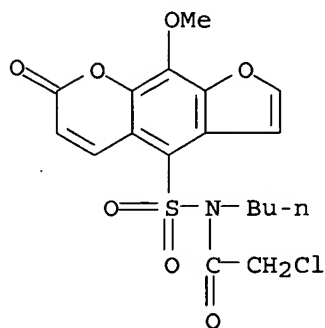
RN 92831-61-3 CAPLUS

CN Acetamide, 2-chloro-N-[(9-methoxy-7-oxo-7H-furo[3,2-g][1]benzopyran-4-yl)sulfonyl]-N-methyl- (9CI) (CA INDEX NAME)



RN 92831-63-5 CAPLUS

CN Acetamide, N-butyl-2-chloro-N-[(9-methoxy-7-oxo-7H-furo[3,2-g][1]benzopyran-4-yl)sulfonyl]- (9CI) (CA INDEX NAME)



L69 ANSWER 83 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:174556 CAPLUS

DOCUMENT NUMBER: 100:174556

TITLE: Synthesis and biological activity of N-substituted amides of furancarboxylic acids and furfurylphthalimide derivatives

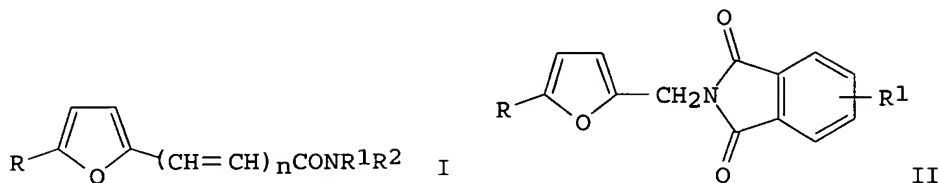
AUTHOR(S): Lukevics, E.; Castro, I.; Popelis, J.; Dipans, I.; Rozhkova, N. G.; Andreeva, E. I.; Kukalenko, S. S.

CORPORATE SOURCE: Inst. Org. Sint., Riga, USSR

SOURCE: Latvijas PSR Zinatnu Akademijas Vestis, Kimijas Serija (1983), (6), 739-44

CODEN: LZAKAM; ISSN: 0002-3248

DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 100:174556  
 GI



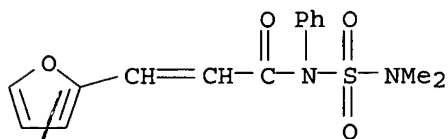
AB  $\beta$ -2-Furylacrylamides and homologs (I) (n, R, R1, R2 = 0, H, Ph, SO2NMe2; 0, NO2, Ph, SO2NMe2; 1, NO2, Et, Et; 1, NO2, Me2CHCH2, H; 1, NO2, 2-furylmethyl, H; 1, NO2, PhCH2, H; 1, NO2, Ph, H; 1, NO2, Ph, SO2NMe2; 1, H, Ph, SO2NMe2) and N-(2-furylmethyl)phthalimides (II; R, R1 = H, H; NO2, H; H, 4-Cl; H, 4-I; H, 3-Cl) were prepared conventionally and found less effective as bactericides and fungicides than stds.

IT 89811-30-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and bactericidal and fungicidal activity of)

RN 89811-30-3 CAPLUS

CN 2-Propenamide, N-[(dimethylamino)sulfonyl]-3-(2-furyl)-N-phenyl- (9CI)  
 (CA INDEX NAME)



169 ANSWER 84 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:51177 CAPLUS

DOCUMENT NUMBER: 100:51177

TITLE: 2,5-Dichlorobenzenesulfonamide derivatives and their biological activities

AUTHOR(S): El-Sharief, A. M. S.; Ammar, M. S.; Ammar, Y. A.; Zaki, M. E. A.

CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Cairo, Egypt

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1983), 22B(7), 700-4

CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 100:51177

AB 2,5-Cl2C6H3SO2Cl (I) reacts with 4-H2NC6H4CO2H to give the sulfonamide from which esters and amides have been prepared Reaction of I with N2H4 furnishes two hydrazides. Phenols and thiols react with I to give sulfonic esters, one of which reacts with hippuric acid to give the



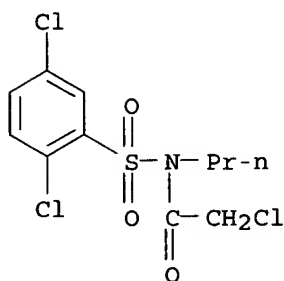
oxazolone derivative Reaction of I with 4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHPh gives 2,5-dichloro-N-[(p-phenylamino)phenyl]benzenesulfonamide which has been converted to acridines and phenothiazine derivs. Most of the compds. show either low or no activity against a number of bacteria and filamentous fungi.

IT 88522-29-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and bactericidal activity of)

RN 88522-29-6 CAPLUS

CN Acetamide, 2-chloro-N-[(2,5-dichlorophenyl)sulfonyl]-N-propyl- (9CI) (CA INDEX NAME)



L69 ANSWER 85 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:470727 CAPLUS

DOCUMENT NUMBER: 99:70727

TITLE: Substituted urea derivatives

INVENTOR(S): Soos, Rudolf; Bitter, Istvan; Hidasi, Gyorgy; Zoltan, Sandor; Vidra, Laszlo; Schler, Istvan

PATENT ASSIGNEE(S): Chinoin Gyogyszer es Vegyeszeti Termekek Gyara Rt., Hung.

SOURCE: Hung. Teljes, 14 pp.

CODEN: HUXXB

DOCUMENT TYPE: Patent

LANGUAGE: Hungarian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| HU 24125   | O    | 19821228 | HU 1979-CI1939  | 19790604 |
| HU 181675  | B    | 19831128 |                 |          |

PRIORITY APPLN. INFO.: HU 1979-CI1939 19790604

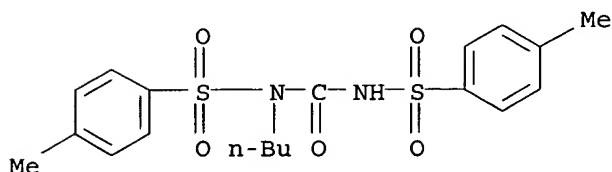
OTHER SOURCE(S): CASREACT 99:70727

AB The urea derivs. R<sub>1</sub>R<sub>2</sub>NCONHR<sub>3</sub> (R<sub>1</sub> = H or C<sub>1</sub>-6 alkyl; R<sub>2</sub> = 4-H<sub>2</sub>N- or 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>; NR<sub>1</sub>R<sub>2</sub> = alkoxycarbonylaminobenzimidazolyl; R<sub>3</sub> = alkyl or 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>) are prepared from the corresponding formamide derivs. R<sub>3</sub>NHCHO by chlorination, followed by reaction with R<sub>1</sub>R<sub>2</sub>NH in the presence of an acid-binding compound. Thus, 73.7 g SO<sub>2</sub>Cl<sub>2</sub> was treated dropwise with 46.9 g butylformamide. The mixture was added dropwise into a mixture of 64 g 2-(methoxycarbonylamino)benzimidazole and 30 g CaCO<sub>3</sub> in 250 mL acetone and 200 mL water, followed by acidification with HCl to give 95 g 1-(butylcarbonyl)-2-(methoxycarbonylamino)benzimidazole. N-(4-Aminobenzenesulfonyl)-N'-butylurea was prepared similarly, using 4-acetamidobenzenesulfonamide, and deacetylation of the reaction product.

IT 86602-57-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 86602-57-5 CAPLUS

CN Benzenesulfonamide, N-butyl-4-methyl-N-[[[(4-methylphenyl)sulfonyl]amino]c  
arbonyl]- (9CI) (CA INDEX NAME)

L69 ANSWER 86 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:156407 CAPLUS

DOCUMENT NUMBER: 98:156407

TITLE: Herbicide compositions of phenoxybenzoic acid  
derivatives

INVENTOR(S): Lee, G. H.

PATENT ASSIGNEE(S): Rhone-Poulenc Agrochimie, Fr.

SOURCE: Belg., 29 pp.  
CODEN: BEXXAL

DOCUMENT TYPE: Patent

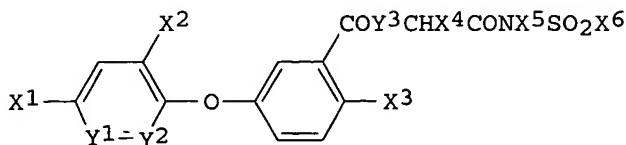
LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| -----                  | ---- | -----    | -----           | -----      |
| BE 893941              | A1   | 19830126 | BE 1982-208677  | 19820726   |
| FR 2510104             | A1   | 19830128 | FR 1982-11334   | 19820625   |
| NL 8202973             | A    | 19830216 | NL 1982-2973    | 19820723   |
| DK 8203334             | A    | 19830128 | DK 1982-3334    | 19820726   |
| SE 8204456             | A    | 19830128 | SE 1982-4456    | 19820726   |
| AU 8286427             | A1   | 19830203 | AU 1982-86427   | 19820726   |
| DE 3227894             | A1   | 19830217 | DE 1982-3227894 | 19820726   |
| JP 58026861            | A2   | 19830217 | JP 1982-130217  | 19820726   |
| GB 2106102             | A1   | 19830407 | GB 1982-21569   | 19820726   |
| ZA 8205346             | A    | 19830525 | ZA 1982-5346    | 19820726   |
| ES 514353              | A1   | 19830816 | ES 1982-514353  | 19820726   |
| HU 30859               | O    | 19840428 | HU 1982-2400    | 19820726   |
| BR 8204371             | A    | 19830719 | BR 1982-4371    | 19820727   |
| DD 202372              | A5   | 19830914 | DD 1982-241981  | 19820727   |
| PRIORITY APPLN. INFO.: |      |          | US 1981-286959  | A 19810727 |
|                        |      |          | US 1981-286997  | A 19810727 |

GI



I

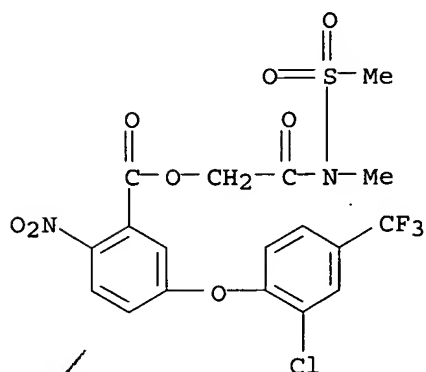
AB The phenoxybenzoic acid derivs. I (X1, X2, and X3 = halo, alkyl, haloalkyl, etc.; Y1 = N or CH; Y2 = H or CX7; Y3 = O or S; X4 = H, alkyl, etc.; X5 = H, Na, K, NH4, etc.; X6 = alkyl or substituted alkyl; X7 = H or halogen) are herbicides. Thus, pre-emergence application of 4-methylphenylsulfonylaminocarbonylmethyl 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrobenzoate Na salt [85260-83-9] (1.12 kg/ha) controlled wild mustard (*Sinapis arvensis*) and pigweed (*Amaranthus retroflexus*), with no phytotoxicity to cotton. The synthesis of I is given.

IT **85260-85-1P**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and herbicidal activity of)

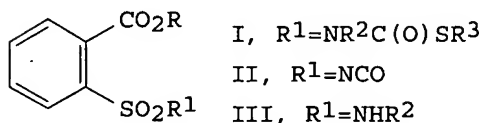
RN 85260-85-1 CAPLUS

CN Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-[methyl(methylsulfonyl)amino]-2-oxoethyl ester (9CI) (CA INDEX NAME)



✓ L69 ANSWER 87 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1983:53400 CAPLUS  
 DOCUMENT NUMBER: 98:53400  
 TITLE: Benzenesulfoamide derivatives  
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                   | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------------|------|----------|-----------------|----------|
| JP 57140763                  | A2   | 19820831 | JP 1981-26424   | 19810225 |
| PRIORITY APPLN. INFO.:<br>GI |      |          | JP 1981-26424   | 19810225 |



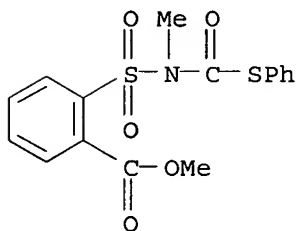
AB Thirty-nine benzenesulfonamides I [R = alkyl, alkenyl; R2 = H, alkyl; R3 = alkyl, alkenyl, cycloalkyl, (substituted) benzyl, (substituted) Ph, furylmethyl, methylpyridyl, methylimidazolyl, methyltriazolyl] were prepared by reaction of II with HSR3 or by reaction of III with ClC(O)SR3. Thus, stirring a mixture of 30 mL benzene, 4.2 g HSC6H2Cl3-2,4,5, and 4.8 g II (R = Me) at room temperature for 3 h followed by standing overnight gave 4.7 g I

(R = Me, R2 = H, R3 = 2,4,5-Cl3C6H2). I were effective against Pyricularia oryzae in emulsion, powder, and granular forms.

IT **84334-34-9P 84334-44-1P**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation and antibacterial activity of)

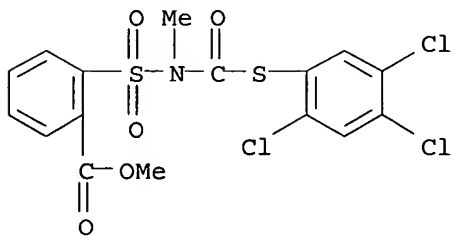
RN 84334-34-9 CAPLUS

CN Benzoic acid, 2-[[methyl[(phenylthio)carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 84334-44-1 CAPLUS

CN Benzoic acid, 2-[[methyl[[[(2,4,5-trichlorophenyl)thio]carbonyl]amino]sulfonyl]-, methyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 88 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:582004 CAPLUS

DOCUMENT NUMBER: 97:182004

TITLE: Arylsulfonylureidocarboxylates and -thiocarboxylates and their salts: herbicidal antidotes

INVENTOR(S): Pallos, Ferenc Marcus; Lin, Kang Chi; Green, Laddie Lee

PATENT ASSIGNEE(S): Stauffer Chemical Co. , USA

SOURCE: Eur. Pat. Appl., 65 pp.  
 CODEN: EPXXDW

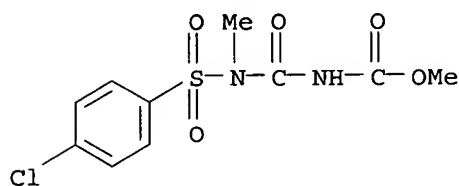
DOCUMENT TYPE: Patent

LANGUAGE: English

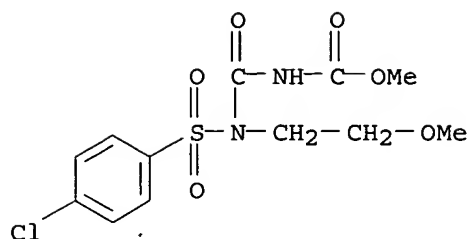
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

| PATENT NO.                            | KIND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DATE     | APPLICATION NO. | DATE       |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|------------|
| EP 52856                              | A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19820602 | EP 1981-109748  | 19811117   |
| EP 52856                              | A3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19820728 |                 |            |
| R: AT, BE, CH, DE, FR, GB, IT, NL, SE |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |                 |            |
| DK 8105062                            | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19820520 | DK 1981-5062    | 19811116   |
| FI 8103670                            | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19820520 | FI 1981-3670    | 19811118   |
| NO 8103906                            | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19820521 | NO 1981-3906    | 19811118   |
| AU 8177597                            | A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19820527 | AU 1981-77597   | 19811118   |
| BR 8107511                            | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19820810 | BR 1981-7511    | 19811118   |
| DD 202368                             | A5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19830914 | DD 1981-234956  | 19811118   |
| HU 27549                              | O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19831028 | HU 1981-3451    | 19811118   |
| JP 57118552                           | A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19820723 | JP 1981-184531  | 19811119   |
| ZA 8108019                            | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19821229 | ZA 1981-8019    | 19811119   |
| ES 507277                             | A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19830316 | ES 1981-507277  | 19811119   |
| PL 129928                             | B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19840630 | PL 1981-233897  | 19811119   |
| ES 516548                             | A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19831201 | ES 1982-516548  | 19821015   |
| JP 58083668                           | A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 19830519 | JP 1982-181489  | 19821018   |
| US 4931580                            | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19900605 | US 1983-564981  | 19831223   |
| PRIORITY APPLN. INFO.:                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | US 1980-207991  | A 19801119 |
|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          | US 1981-312251  | A 19811019 |
| AB                                    | RSO2NR1CONR2C(O)XR3 [I; R = (un)substituted Ph, PhCH2, naphthyl, pyridyl, styryl; R1 = H, C1-4 alkyl, C2-6 alkoxyalkyl; R2 = H, C1-4 alkyl, C2-6 alkoxyalkyl, Ph, ClC6H4; X = O, S; R3 = C1-4 alkyl, C3-6 alkenyl or alkynyl, C1-4 haloalkyl, C2-6 alkoxyalkyl, CPh:CHMe, PhCH2, chlorobenzyl, C3-6 haloalkenyl, (un)substituted Ph] were prepared for protecting crops from injury due to thiocarbamate, thiocarbamate sulfoxide, or haloacetanilide herbicides. Thus, reaction of H2NCO2Me and 4-ClC6H4SO2NCO gave 1-(4-chlorobenzenesulfonyl)-3-(methoxycarbonyl)urea. Alternatively, reaction of 4-O2NC6H4SO2NH2 and OCNCO2Me in the presence of pyridine catalysts gave 1-(4-nitrobenzenesulfonyl)-3-(methoxycarbonyl)urea. About 150 examples of I were prepared |          |                 |            |
| IT                                    | 83308-97-8P 83309-12-0P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |                 |            |
|                                       | RL: SPN (Synthetic preparation); PREP (Preparation)<br>(preparation and activity as herbicidal antidote)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |                 |            |
| RN                                    | 83308-97-8 CAPLUS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |                 |            |
| CN                                    | Carbamic acid, [[[(4-chlorophenyl)sulfonyl]methylamino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |                 |            |



RN 83309-12-0 CAPLUS  
 CN Carbamic acid, [[[(4-chlorophenyl)sulfonyl] (2-methoxyethyl) amino] carbonyl]-, methyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 89 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:144016 CAPLUS

DOCUMENT NUMBER: 96:144016

TITLE: Siloxane emulsions with improved cold stability

INVENTOR(S): Steinbach, Hans Horst; Schnurrbusch, Karl; Rieder, Matthias; Weiden, Otto

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                | KIND | DATE     | APPLICATION NO. | DATE       |
|---------------------------|------|----------|-----------------|------------|
| EP 43985                  | A2   | 19820120 | EP 1981-105091  | 19810701   |
| EP 43985                  | A3   | 19820127 |                 |            |
| EP 43985                  | B1   | 19841003 |                 |            |
| R: BE, DE, FR, GB, IT, NL |      |          |                 |            |
| DE 3026501                | A1   | 19820204 | DE 1980-3026501 | 19800712   |
| PRIORITY APPLN. INFO.:    |      |          | DE 1980-3026501 | A 19800712 |

AB Alcs. such as EtOH [64-17-5], glycerol [56-81-5], and HOCH<sub>2</sub>CH<sub>2</sub>OH [107-21-1] improved the freeze-thaw stability of emulsions of siloxanes containing Si-bonded H. The emulsions are resistant to hydrolytic splitting to H. The emulsions are useful for the waterproofing of textiles, as crosslinking agents for siloxanes, etc. Thus, an emulsion (pH 3-4) comprising a poly(methylhydrogensiloxane) 80, C<sub>12</sub>H<sub>25</sub>(PhCH<sub>2</sub>)NMe<sub>2</sub>Cl [139-07-1] 7, glycerol 2, EtOH 1, and water 110 parts was stable during a freeze-thaw test (-20°). The emulsion (300 mL) formed 8 mL H during 24 h of stirring at 40°.

IT 59355-81-6

RL: USES (Uses)

(emulsifying agents, for poly(methylhydrogensiloxane))

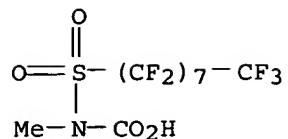
RN 59355-81-6 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[[heptadecafluorooctyl)sulfonyl]methylcarbamate], butyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 123748-41-4

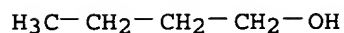
CMF C10 H4 F17 N O4 S



CM 2

CRN 71-36-3

CMF C4 H10 O



CM 3

CRN 9003-11-6

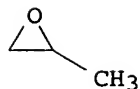
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



L69 ANSWER 90 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:29975 CAPLUS

DOCUMENT NUMBER: 96:29975

TITLE: N-(Benzenesulfonyl)thiocarbamates as herbicidal antidotes

INVENTOR(S): Gaughan, Edmund J.; Kezerian, Charles

PATENT ASSIGNEE(S): Stauffer Chemical Co. , USA

SOURCE: Can., 20 pp. Division of Can. Appl. No. 262,513.

CODEN: CAXXA4

DOCUMENT TYPE: Patent

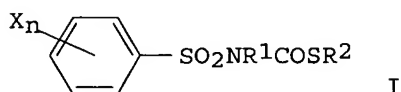
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

## PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| CA 1110081             | A2   | 19811006 | CA 1980-362715  | 19801017    |
| BE 846895              | A2   | 19770401 | BE 1976-7000898 | 19761001    |
| CA 1103694             | A1   | 19810623 | CA 1976-262513  | 19761001    |
| HU 22393               | O    | 19820528 | HU 1976-SA2980  | 19761001    |
| HU 180069              | B    | 19830128 |                 |             |
| SU 671700              | D    | 19790630 | SU 1976-2412353 | 19761019    |
| US 4356025             | A    | 19821026 | US 1981-241278  | 19810306    |
| PRIORITY APPLN. INFO.: |      |          | US 1975-619115  | A 19751002  |
|                        |      |          | US 1976-723251  | A 19760917  |
|                        |      |          | CA 1976-262513  | A3 19761001 |
|                        |      |          | US 1979-108890  | A3 19791231 |

GI



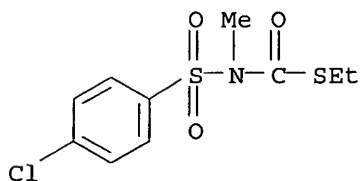
AB Herbicidal compns. containing a thiocarbamate herbicide and an N-(benzenesulfonyl)thiocarbamate I (X = H, Me, Cl, Br, OMe; R1 = H, Me; R2 = C1-4 alkyl, etc.; n = 1, 2 or 3) are antidotally active. Thus, preplant incorporation of Vernam (S-Pr N,N-di-Pr thiocarbamate) [1929-77-7] at 6 lb/acre in tank mix with N-(p-chlorobenzenesulfonyl)thiolcarbamate Et ester [63637-93-4] (6 lb/acre) in an exptl. system containing soybean, Setaria viridis and Echinochloa crus-galli provided 50% protection to soybean. Synthesis of the antidotes is described.

IT 63637-96-7

RL: BIOL (Biological study)  
(as thiocarbamate herbicidal antidote)

RN 63637-96-7 CAPLUS

CN Carbamothioic acid, [(4-chlorophenyl)sulfonyl]methyl-, S-ethyl ester (9CI)  
(CA INDEX NAME)



L69 ANSWER 91 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1980:567921 CAPLUS

DOCUMENT NUMBER: 93:167921

TITLE: Acaricidal sulfonamides

INVENTOR(S): Takahashi, Susumu; Kano, Saburo; Yamada, Tomio

PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

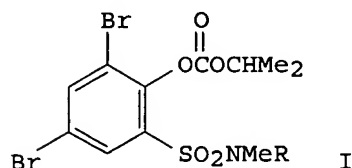
CODEN: JKXXAF

DOCUMENT TYPE: Patent



LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                   | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------------|------|----------|-----------------|------------|
| JP 55038354                  | A2   | 19800317 | JP 1978-112629  | 19780913   |
| PRIORITY APPLN. INFO.:<br>GI |      |          | JP 1978-112629  | A 19780913 |



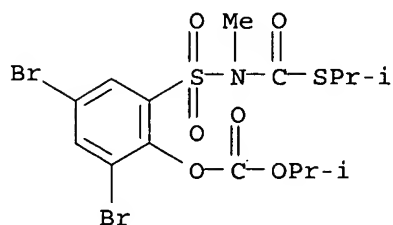
AB Sulfonamides I (R = alkylthiocarbonyl, alkylthioalkoxycarbonyl) were prepared and used as acaricides. Thus, refluxing 4 g I (R = H) K salt with 1.3 g Me<sub>2</sub>CHSCOC<sub>2</sub>H<sub>5</sub> in MeCN 2.5 h gave 3.9 g I (R = Me<sub>2</sub>CHSCO).

IT 75145-34-5P 75145-35-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and acaricidal activity of)

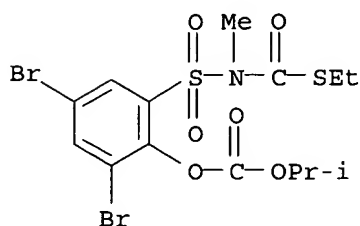
RN 75145-34-5 CAPLUS

CN Carbonic acid, 2,4-dibromo-6-[[methyl[(1-methylethyl)thio]carbonyl]amino]sulfonyl]phenyl 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 75145-35-6 CAPLUS

CN Carbonic acid, 2,4-dibromo-6-[[[(ethylthio)carbonyl]methylamino]sulfonyl]phenyl 1-methylethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 92 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1980:182867 CAPLUS

DOCUMENT NUMBER: 92:182867

TITLE: Preliminary data on lowering of the surface tension of a liquid paraffin by the effect of some derivatives of perfluorooctanesulfonic and perfluorooctanoic acids

AUTHOR(S): Napoli, Massimo; Fraccaro, Carla; Badan, Brando; Scipioni, Antonio

CORPORATE SOURCE: Italy

SOURCE: Atti - Istituto Veneto di Scienze, Lettere ed Arti, Classe di Scienze Matematiche e Naturali (1978), 136, 101-9

CODEN: AIVLAQ; ISSN: 0365-3528

DOCUMENT TYPE: Journal

LANGUAGE: Italian

AB The decrease in the surface tension of liquid paraffins in the presence of derivs. of the perfluorooctanesulfonic acid and perfluorooctanoic acid depends on the solubility, nature of functional groups, organophobic-organophilic group ratio and F/H ratio. The decrease in surface tension of the paraffin with increasing solubility of the fluorinated compound was

higher for amides than for esters of the fluorinated acids. The surface tension decreased with increasing F/H ratio in the fluorinated compds. was observed for esters while no correlation was observed in case of amides. The exptl. data suggested a higher organophilicity of the ester than of the amide group of the fluorinated compds.

IT 59355-81-6

RL: USES (Uses)

(surfactant, for liquid paraffins)

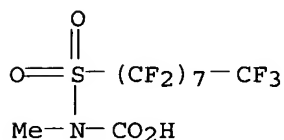
RN 59355-81-6 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[[heptadecafluorooctyl)sulfonyl]methylcarbamate], butyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 123748-41-4

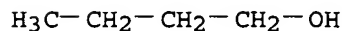
CMF C10 H4 F17 N O4 S



CM 2

CRN 71-36-3

CMF C4 H10 O

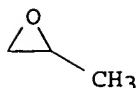


CM 3

CRN 9003-11-6  
 CMF (C3 H6 O . C2 H4 O)x  
 CCI PMS

CM 4

CRN 75-56-9  
 CMF C3 H6 O



CM 5

CRN 75-21-8  
 CMF C2 H4 O



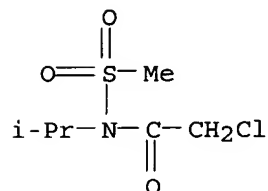
69 ANSWER 93 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1980:41570 CAPLUS  
 DOCUMENT NUMBER: 92:41570  
 TITLE: Benzenesulfonamide derivatives  
 INVENTOR(S): Iwakura, Toshio; Hirakawa, Katsuhito; Takayama, Shuichi; Ito, Shigehisa  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|------------|
| JP 54090117                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A2   | 19790717 | JP 1977-157009  | 19771226   |
| PRIORITY APPLN. INFO.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |          | JP 1977-157009  | A 19771226 |
| AB Twenty-seven title derivs. RSO <sub>2</sub> NR <sub>2</sub> COR <sub>1</sub> [I, R = alkyl, R <sub>3</sub> C <sub>6</sub> H <sub>4</sub> , R <sub>3</sub> = H, Cl, alkyl, AcNH; R <sub>1</sub> = alkyl, chloroalkyl; R <sub>2</sub> = alkyl, aryl, (R <sub>4</sub> )nC <sub>6</sub> H <sub>5</sub> -n, R <sub>4</sub> = Cl, alkyl, n = 0-2] were prepared by reaction of RSO <sub>2</sub> NR <sub>2</sub> R <sub>5</sub> (R <sub>5</sub> = H, alkali metals) with R <sub>1</sub> COX (X = halo). Thus, 5.4 g ClCH <sub>2</sub> COCl was added to 8 g PhSO <sub>2</sub> NNaCH <sub>2</sub> Me in C <sub>6</sub> H <sub>6</sub> and the mixture refluxed 3 h to give 63.6% I (R = Ph, R <sub>1</sub> = ClCH <sub>2</sub> , R <sub>2</sub> = Me <sub>2</sub> CH). Antibacterial data of I were given against <i>Pyricularia orizae</i> . |      |          |                 |            |
| IT 38994-92-2P 72309-98-9P 72309-99-0P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |          |                 |            |
| 72310-00-0P 72310-01-1P 72310-02-2P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                 |            |
| 72310-03-3P 72310-04-4P 72310-12-4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                 |            |
| 72310-13-5P 72310-14-6P 72310-17-9P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                 |            |
| 72310-18-0P 72310-19-1P 72310-20-4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                 |            |
| 72310-22-6P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |          |                 |            |
| RL: SPN (Synthetic preparation); PREP (Preparation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                 |            |

(preparation of)

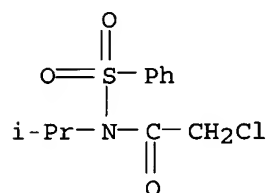
RN 38994-92-2 CAPLUS

CN Acetamide, 2-chloro-N-(1-methylethyl)-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



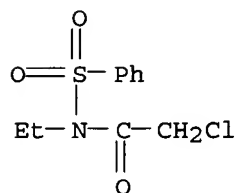
RN 72309-98-9 CAPLUS

CN Acetamide, 2-chloro-N-(1-methylethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



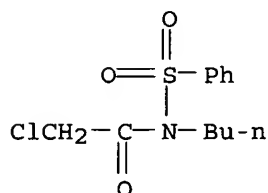
RN 72309-99-0 CAPLUS

CN Acetamide, 2-chloro-N-ethyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



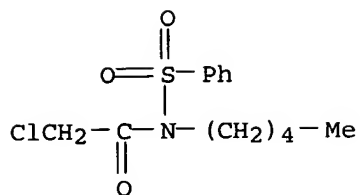
RN 72310-00-0 CAPLUS

CN Acetamide, N-butyl-2-chloro-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

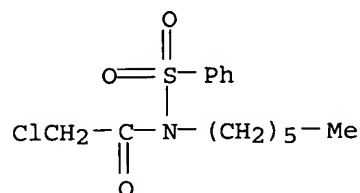


RN 72310-01-1 CAPLUS

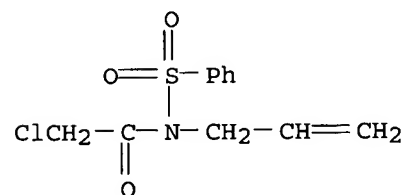
CN Acetamide, 2-chloro-N-pentyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



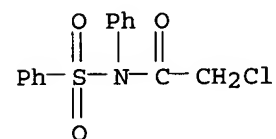
RN 72310-02-2 CAPLUS  
 CN Acetamide, 2-chloro-N-hexyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



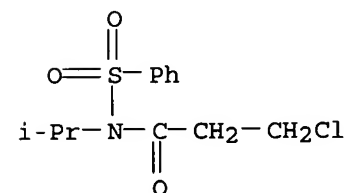
RN 72310-03-3 CAPLUS  
 CN Acetamide, 2-chloro-N-(phenylsulfonyl)-N-2-propenyl- (9CI) (CA INDEX NAME)



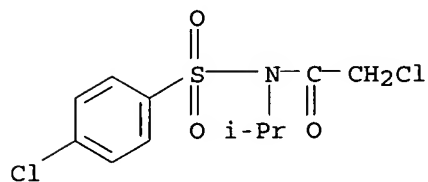
RN 72310-04-4 CAPLUS  
 CN Acetamide, 2-chloro-N-phenyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



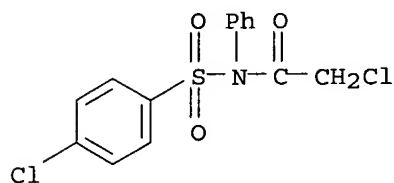
RN 72310-12-4 CAPLUS  
 CN Propanamide, 3-chloro-N-(1-methylethyl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



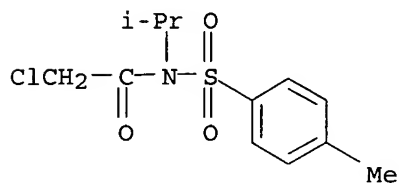
RN 72310-13-5 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-chlorophenyl)sulfonyl]-N-(1-methylethyl)- (9CI)  
 (CA INDEX NAME)



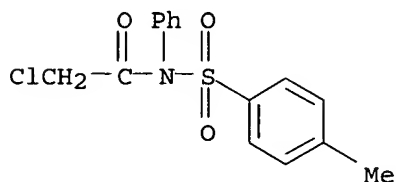
RN 72310-14-6 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-chlorophenyl)sulfonyl]-N-phenyl- (9CI) (CA  
 INDEX NAME)



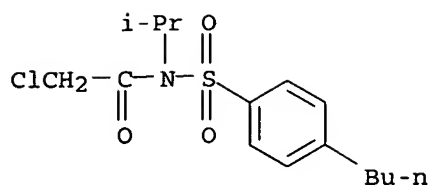
RN 72310-17-9 CAPLUS  
 CN Acetamide, 2-chloro-N-(1-methylethyl)-N-[(4-methylphenyl)sulfonyl]- (9CI)  
 (CA INDEX NAME)



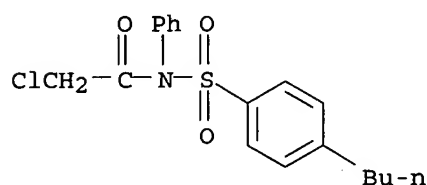
RN 72310-18-0 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-methylphenyl)sulfonyl]-N-phenyl- (9CI) (CA  
 INDEX NAME)



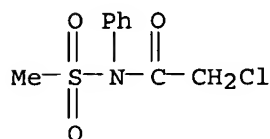
RN 72310-19-1 CAPLUS  
 CN Acetamide, N-[(4-butylphenyl)sulfonyl]-2-chloro-N-(1-methylethyl)- (9CI)  
 (CA INDEX NAME)



RN 72310-20-4 CAPLUS  
 CN Acetamide, N-[(4-butylphenyl)sulfonyl]-2-chloro-N-phenyl- (9CI) (CA INDEX NAME)



RN 72310-22-6 CAPLUS  
 CN Acetamide, 2-chloro-N-(methylsulfonyl)-N-phenyl- (9CI) (CA INDEX NAME)

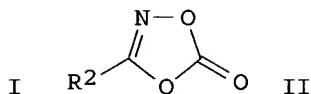
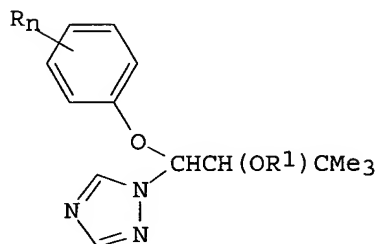


L69 ANSWER 94 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1980:6533 CAPLUS  
 DOCUMENT NUMBER: 92:6533  
 TITLE: Fungicidal carbamoyltriazolyl-O,N-acetals  
 INVENTOR(S): Buechel, Karl Heinz; Kraemer, Wolfgang; Brandes, Wilhelm  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 22 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 2800544 | A1   | 19790719 | DE 1978-2800544 | 19780107 |
| CA 1094258 | A1   | 19810127 | CA 1977-272661  | 19770225 |
| US 4237142 | A    | 19801202 | US 1978-971291  | 19781220 |
| EP 3049    | A2   | 19790725 | EP 1978-101848  | 19781223 |
| EP 3049    | B1   | 19800820 |                 |          |
| EP 3049    | A3   | 19790808 |                 |          |

R: BE, CH, DE, FR, GB, IT, NL, SE

|                        |    |          |                 |            |
|------------------------|----|----------|-----------------|------------|
| RO 75739               | P  | 19810228 | RO 1978-96067   | 19781227   |
| SU 910108              | A3 | 19820228 | SU 1979-2706202 | 19790103   |
| CS 204043              | P  | 19810331 | CS 1979-134     | 19790104   |
| DK 7900046             | A  | 19790708 | DK 1979-46      | 19790105   |
| JP 54100377            | A2 | 19790808 | JP 1979-72      | 19790105   |
| BR 7900048             | A  | 19790814 | BR 1979-48      | 19790105   |
| ES 476617              | A1 | 19791101 | ES 1979-476617  | 19790105   |
| ZA 7900045             | A  | 19800130 | ZA 1979-45      | 19790105   |
| DD 141256              | C  | 19800423 | DD 1979-210358  | 19790105   |
| AT 7900107             | A  | 19810115 | AT 1979-107     | 19790105   |
| AT 363723              | B  | 19810825 |                 |            |
| PL 115653              | B1 | 19810430 | PL 1979-212674  | 19790105   |
| CA 1113945             | A1 | 19811208 | CA 1979-319159  | 19790105   |
| HU 23086               | O  | 19820830 | HU 1979-BA3745  | 19790105   |
| HU 180673              | B  | 19830429 |                 |            |
| IL 56378               | A1 | 19830515 | IL 1979-56378   | 19790105   |
| AU 7943183             | A1 | 19790712 | AU 1979-43183   | 19790108   |
| AU 517276              | B2 | 19810716 |                 |            |
| PRIORITY APPLN. INFO.: |    |          | DE 1978-2800544 | A 19780107 |
| GI                     |    |          |                 |            |



AB The title compds. I [R = halogen, alkyl, alkoxy, esterified CO<sub>2</sub>H, (un)substituted Ph, PhO, or phenylalkyl, NH<sub>2</sub>, NO<sub>2</sub>, CN, etc; R<sub>1</sub> = R<sub>2</sub>CO; R<sub>2</sub> = alkyl, halo- or alkoxyalkyl, esterified CO<sub>2</sub>H, substituted Ph, alkylsulfonylalkenylcarbonyl; n = 0-5] were prepared by the reaction of I (R<sub>1</sub> = H) with R<sub>2</sub>NCO or II and tested for fungicidal activity. Thus, I (R<sub>n</sub> = 4-Ph, R<sub>1</sub> = H) reacted with MeOCH<sub>2</sub>NCO in THF to give I (R<sub>n</sub> = 4-Ph, R<sub>1</sub> = MeOCH<sub>2</sub>NHCO).

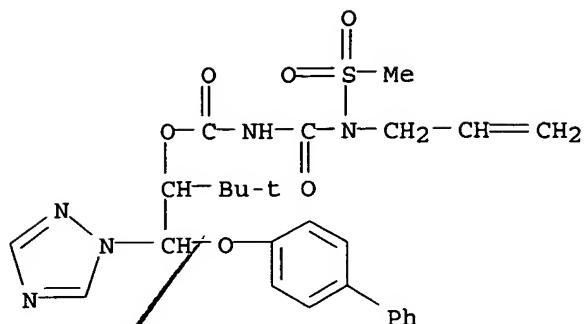
IT **72013-92-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 72013-92-4 CAPLUS

CN Carbamic acid, [[[methylsulfonyl]-2-propenylamino]carbonyl]-, 1-[[[1,1'-biphenyl]-4-yloxy]-1H-1,2,4-triazol-1-ylmethyl]-2,2-dimethylpropyl ester (9CI) (CA INDEX NAME)





L69 / ANSWER 95 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1978:530453 CAPLUS

DOCUMENT NUMBER: 89:130453

TITLE: Stable alkylhydrogenpolysiloxane emulsions

INVENTOR(S): Steinbach, Hans Horst; Schnurrbusch, Karl; Rieder, Matthias; Weiden, Otto

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 9 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 2701724 | A1   | 19780720 | DE 1977-2701724 | 19770118 |
| DE 2701724 | C2   | 19840920 |                 |          |
| US 4179426 | A    | 19791218 | US 1978-866965  | 19780104 |
| GB 1591957 | A    | 19810701 | GB 1978-1454    | 19780113 |
| FI 7800135 | A    | 19780719 | FI 1978-135     | 19780116 |
| FI 68647   | B    | 19850628 |                 |          |
| FI 68647   | C    | 19851010 |                 |          |
| CA 1109576 | A1   | 19810922 | CA 1978-294968  | 19780116 |
| SE 7800541 | A    | 19780719 | SE 1978-541     | 19780117 |
| SE 425807  | B    | 19821108 |                 |          |
| SE 425807  | C    | 19830217 |                 |          |
| NL 7800546 | A    | 19780720 | NL 1978-546     | 19780117 |
| BR 7800259 | A    | 19780905 | BR 1978-259     | 19780117 |
| BE 863006  | A1   | 19780718 | BE 1978-56607   | 19780118 |
| FR 2377438 | A1   | 19780811 | FR 1978-1404    | 19780118 |
| FR 2377438 | B1   | 19851025 |                 |          |
| AT 7800356 | A    | 19820915 | AT 1978-356     | 19780118 |
| AT 370758  | B    | 19830510 |                 |          |

PRIORITY APPLN. INFO.: DE 1977-2701724 A 19770118

AB A perfluoroalkyl group-containing emulsifier and, optionally, a perfluoroalkyl group-containing siloxane were used to prepare stable aqueous emulsions of alkylhydrogen siloxanes with good stabilization of the Si-H bonds. The emulsions were especially suitable as waterproofing compns. for textiles.

Thus,

35 parts methylhydrogen siloxane was mixed with 64.5 parts water containing 0.5 part C8F17SO2NMeCO(OC2H4)30(OC3H6)300Bu [59355-81-6] to prepare a stable emulsion.

IT 59355-81-6

RL: USES (Uses)  
(emulsifiers, for alkylhydrogen siloxanes)

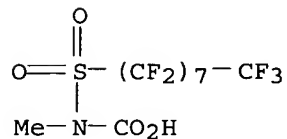
RN 59355-81-6 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[[heptadecafluorooctyl)sulfon  
yl]methylcarbamate], butyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 123748-41-4

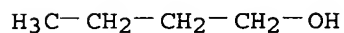
CMF C10 H4 F17 N O4 S



CM 2

CRN 71-36-3

CMF C4 H10 O



CM 3

CRN 9003-11-6

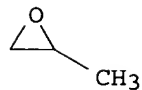
CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

CMF C2 H4 O



L69 ANSWER 96 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1977:534745 CAPLUS  
 DOCUMENT NUMBER: 87:134745  
 TITLE: N-(Benzenesulfonyl)thiocarbamates for herbicides  
 INVENTOR(S): Gaughan, Edmund J.; Kezerian, Charles  
 PATENT ASSIGNEE(S): Stauffer Chemical Co., USA  
 SOURCE: Ger. Offen., 27 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| DE 2644446             | A1   | 19770414 | DE 1976-2644446 | 19761001    |
| DE 2644446             | C2   | 19841122 |                 |             |
| CH 628210              | A    | 19820226 | CH 1976-12384   | 19760930    |
| BE 846895              | A2   | 19770401 | BE 1976-7000898 | 19761001    |
| DK 7604423             | A    | 19770403 | DK 1976-4423    | 19761001    |
| NL 7610907             | A    | 19770405 | NL 1976-10907   | 19761001    |
| FR 2326418             | A1   | 19770429 | FR 1976-29554   | 19761001    |
| FR 2326418             | B1   | 19801017 |                 |             |
| BR 7606585             | A    | 19770705 | BR 1976-6585    | 19761001    |
| AU 504263              | B2   | 19791011 | AU 1976-18327   | 19761001    |
| GB 1570997             | A    | 19800709 | GB 1976-40796   | 19761001    |
| HU 22393               | O    | 19820528 | HU 1976-SA2980  | 19761001    |
| HU 180069              | B    | 19830128 |                 |             |
| JP 52048641            | A2   | 19770418 | JP 1976-118907  | 19761002    |
| JP 60014021            | B4   | 19850411 |                 |             |
| DD 127615              | C    | 19771005 | DD 1976-195120  | 19761002    |
| RO 72431               | P    | 19810831 | RO 1976-87892   | 19761002    |
| IL 50604               | A1   | 19801130 | IL 1976-50604   | 19761003    |
| IN 144966              | A    | 19780805 | IN 1976-CA1812  | 19761004    |
| PL 101802              | P    | 19790228 | PL 1976-192817  | 19761004    |
| SU 671700              | D    | 19790630 | SU 1976-2412353 | 19761019    |
| US 4297295             | A    | 19811027 | US 1979-108890  | 19791231    |
| US 4356025             | A    | 19821026 | US 1981-241278  | 19810306    |
| JP 58170704            | A2   | 19831007 | JP 1982-200507  | 19821117    |
| PRIORITY APPLN. INFO.: |      |          | US 1975-619115  | A 19751002  |
|                        |      |          | US 1976-723251  | A 19760917  |
|                        |      |          | US 1979-108890  | A3 19791231 |

OTHER SOURCE(S): CASREACT 87:134745

AB 4-RC6H4SO2NR1C(O)SR2 (I; R = H, Br, Cl, Me, MeO; R1 = H or Me; R2 = Et. Pr, Me2CH, PhCH2, 4-ClC6H4, CH2SCOSO2ClH4Cl-4) were prepared by treating 4-RC6H4SO2NHR1 with ClC(O)SR2. I and 2,4,6-Me3C6H2SO2NHC(O)SEt, similarly prepared, protected desirable plants in herbicide mixts.

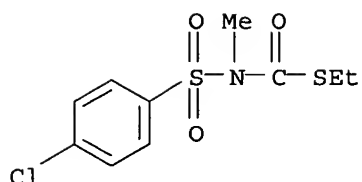
IT 63637-96-7P

RL: PREP (Preparation)

(manufacture of, and use as protective agents for desirable plants in herbicides)

RN 63637-96-7 CAPLUS

CN Carbamothioic acid, [(4-chlorophenyl)sulfonyl]methyl-, S-ethyl ester (9CI)  
 (CA INDEX NAME)



L69 ANSWER 97 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1977:467824 CAPLUS

DOCUMENT NUMBER: 87:67824

TITLE: Synthesis and biological properties of dithiocarbamic acid derivatives. X. The fungicide effectiveness of several N,N-dimethyldithiocarbamates.

AUTHOR(S): Konecny, V.; Halgas, J.

CORPORATE SOURCE: Res. Inst. Agrochem. Technol., Bratislava, Czech.

SOURCE: Acta Facultatis Rerum Naturalium Universitatis

Comenianae, Chimia (1977), 25, 37-67

CODEN: AFRCAQ; ISSN: 0524-2312

DOCUMENT TYPE: Journal

LANGUAGE: German

AB Preparative and fungicidal data are given for 140 derivs. of Me<sub>2</sub>NCS<sub>2</sub>H. These include 81 Me<sub>2</sub>NCS<sub>2</sub>R (R = alkyl, alkenyl, cycloalkyl, Ph, CH<sub>2</sub>Ph, any of the foregoing substituted, including 37 ring-substituted benzyls, PhCH<sub>2</sub>SO<sub>2</sub>, etc.), 15 Me<sub>2</sub>NCS<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>S(CH<sub>2</sub>)<sub>m</sub>R (R = Ph or substituted phenyl; n = 0, 1, or 2, m = 0 or 1), 12 Me<sub>2</sub>NCS<sub>2</sub>(CH<sub>2</sub>)<sub>n</sub>OR (R = H, Et, acyl; n = 1 or 2), 19 Me<sub>2</sub>NCS<sub>2</sub>CH<sub>2</sub>COR (R = OH, alkoxy, NH<sub>2</sub>, substituted amino, N-heterocyclyl, etc.), and 13 Me<sub>2</sub>NCS<sub>2</sub>C(X)R (R = substituted amino, Ph, isopropoxy, etc.).

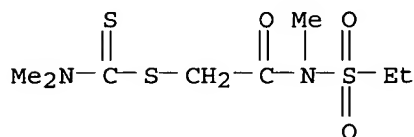
IT 30895-93-3P 30895-94-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and fungicidal activity of)

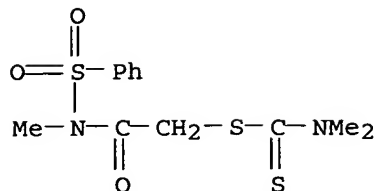
RN 30895-93-3 CAPLUS

CN Carbamodithioic acid, dimethyl-, 2-[(ethylsulfonyl)methylamino]-2-oxoethyl ester (9CI) (CA INDEX NAME)



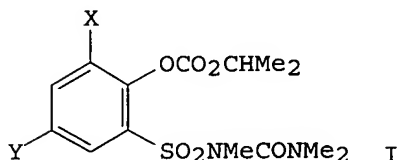
RN 30895-94-4 CAPLUS

CN Carbamodithioic acid, dimethyl-, 2-[methyl(phenylsulfonyl)amino]-2-oxoethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 98 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1977:184574 CAPLUS  
 DOCUMENT NUMBER: 86:184574  
 TITLE: Sulfamoylphenol derivatives as acaricides  
 INVENTOR(S): Kano, Saburo; Ando, Meiki  
 PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                   | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------------|------|----------|-----------------|------------|
| JP 52007937                  | A2   | 19770121 | JP 1975-84117   | 19750709   |
| PRIORITY APPLN. INFO.:<br>GI |      |          | JP 1975-84117   | A 19750709 |

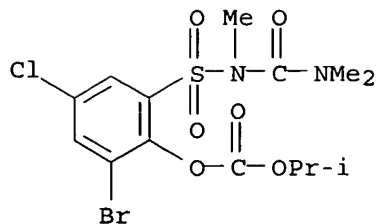


AB The sulfamoylphenyl carbonates I (X = Y = halogen) are acaricides. I (X = Br, Y = Cl) (II) [62572-95-6] was prepared by treating K iso-Pr 2-bromo-4-chloro-6-(N-methylsulfamoyl)phenyl carbonate (III) [62572-96-7] with dimethylcarbamoyle chloride [79-44-7]. III was synthesized by adding iso-Pr chloroformate [108-23-6] to 2-bromo-4-chloro-6-N-methylsulfamoylphenol K salt [62572-97-8]. Similarly, 2 other I were prepared II sprayed at 125 ppm on beans completely controlled Panonychus urticae infestation.

IT 62572-95-6P 62572-98-9P 62572-99-0P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and acaricidal activity of)

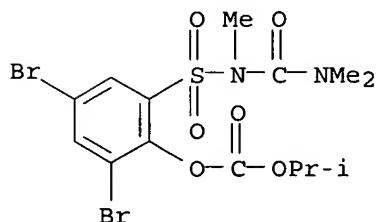
RN 62572-95-6 CAPLUS

CN Carbonic acid, 2-bromo-4-chloro-6-[[[(dimethylamino)carbonyl]methylamino]sulfonyl]phenyl 1-methylethyl ester (9CI) (CA INDEX NAME)



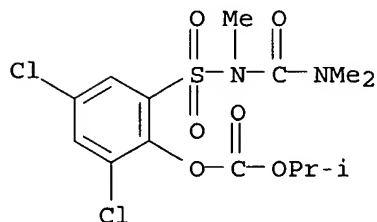
RN 62572-98-9 CAPLUS

CN Carbonic acid, 2,4-dibromo-6-[[[(dimethylamino)carbonyl]methylamino]sulfonyl]phenyl 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 62572-99-0 CAPLUS

CN Carbonic acid, 2,4-dichloro-6-[[[(dimethylamino)carbonyl]methylamino]sulfonyl]phenyl 1-methylethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 99 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1976:432660 CAPLUS

DOCUMENT NUMBER: 85:32660

TITLE: Isocyanates

INVENTOR(S): Hagemann, Hermann

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 9 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                                                                    | KIND | DATE     | APPLICATION NO. | DATE       |
|-------------------------------------------------------------------------------|------|----------|-----------------|------------|
| DE 2449365                                                                    | A1   | 19760422 | DE 1974-2449365 | 19741017   |
| PRIORITY APPLN. INFO.:                                                        |      |          | DE 1974-2449365 | A 19741017 |
| AB RSO2NR1CONCO (I; R = Me, Ph, 4-MeC6H4; R1 = Me, Me2CH, Et, allyl, Ph) were |      |          |                 |            |

prepared in 78-93% yield by the reaction of  $\text{RSO}_2\text{NHR}_1$  with  $\text{ClCONCO}$  in  $\text{PhCl}$  at  $130^\circ$ . I are useful as water-binding agents in polyurethanes.

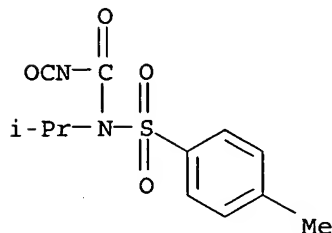
IT 59639-93-9P 59639-94-0P 59639-95-1P

59639-97-3P 59639-98-4P 59639-99-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

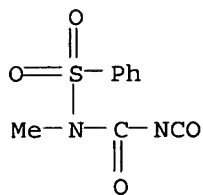
RN 59639-93-9 CAPLUS

CN Benzenesulfonamide, N-(isocyanatocarbonyl)-4-methyl-N-(1-methylethyl)-  
(9CI) (CA INDEX NAME)



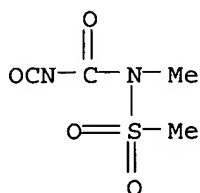
RN 59639-94-0 CAPLUS

CN Benzenesulfonamide, N-(isocyanatocarbonyl)-N-methyl- (9CI) (CA INDEX NAME)



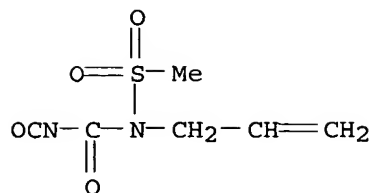
RN 59639-95-1 CAPLUS

CN Methanesulfonamide, N-(isocyanatocarbonyl)-N-methyl- (9CI) (CA INDEX NAME)



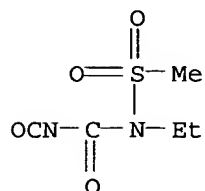
RN 59639-97-3 CAPLUS

CN Methanesulfonamide, N-(isocyanatocarbonyl)-N-2-propenyl- (9CI) (CA INDEX NAME)



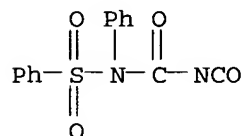
RN 59639-98-4 CAPLUS

CN Methanesulfonamide, N-ethyl-N-(isocyanatocarbonyl)- (9CI) (CA INDEX NAME)



RN 59639-99-5 CAPLUS

CN Benzenesulfonamide, N-(isocyanatocarbonyl)-N-phenyl- (9CI) (CA INDEX NAME)



L69 ANSWER 100 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1976:422318 CAPLUS  
Correction of: 1976:60566DOCUMENT NUMBER: 85:22318  
Correction of: 84:60566

TITLE: Polyethers containing perfluoroalkyl groups

INVENTOR(S): Meussdoerffer, Johann N.; Niederpruem, Hans; Dahmm, Manfred

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 15 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 2238740 |      | 19740207 | DE 1972-2238740 | 19720805 |

AB The title compds. R1SO2N(R2)CO(OZ)nOR3 (R1 = C1-20 perfluoroalkyl; R2 = H, alkyl, CO2(OZ)nOR3; R3 = alkyl, cycloalkyl, CON(R2)SO2R1; Z = alkylene), useful as foam stabilizers for polyurethane foams, are prepared by reaction of R1SO2NR2H with polyalkylene glycol chloroformates. Thus, stirring 250 g polyethylene-polypropylene glycol monobutyl ether chloroformate (mol.



weight .apprx.1500, hydrolyzable Cl 2.2%), 77.4 g perfluorooctanesulfonamide, 22 ml Et<sub>3</sub>N, and 200 ml PhMe 30 min at .apprx.80° gives an oily product [59355-79-2], hydrolyzable Cl content 0.05%, solidifying slowly to a wax. A polyurethane containing 0.5% of this product gives a fine-porous foam, while in the absence of stabilizer the foam collapses.

IT 59355-81-6

RL: USES (Uses)

(stabilizers, for polyurethane foam manufacture)

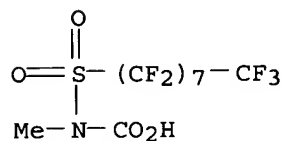
RN 59355-81-6 CAPLUS

CN Oxirane, methyl-, polymer with oxirane, mono[[(heptadecafluorooctyl)sulfonyl]methylcarbamate], butyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 123748-41-4

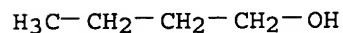
CMF C10 H4 F17 N O4 S



CM 2

CRN 71-36-3

CMF C4 H10 O



CM 3

CRN 9003-11-6

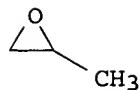
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

CRN 75-21-8

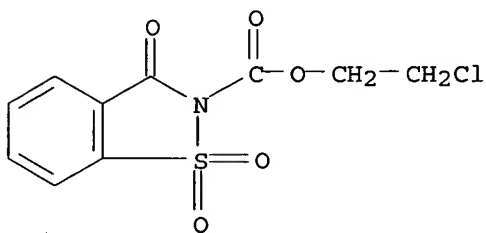
CMF C2 H4 O



L69 ANSWER 101 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1975:140119 CAPLUS  
 DOCUMENT NUMBER: 82:140119  
 TITLE: 2-Substituted-1,2-benzisothiazoline-3-oxo-1,1-dioxide  
 INVENTOR(S): Chiyomaru, Isao; Ikeda, Takuro; Takida, Kiyoshi; Ito, Hideo  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 6 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|-------------|------|----------|-----------------|------------|
| JP 49020779 | B4   | 19740527 | JP 1970-119663  | 19701228   |
|             |      |          | JP 1970-119663  | A 19701228 |

PRIORITY APPLN. INFO.:  
 GI For diagram(s), see printed CA Issue.  
 AB Benzoisothiazolinones I (R1 = Me, ClCH2CH2, Me2CH, Ph, 4-BrC6H4, 4-ClC6H4, 4-MeC6H4, 4-O2NC6H4), useful as bactericides, were prepared by alkoxy-carbonylation of saccharin (II) by R1O2CCl with NaCO3 or NaHCO3. Thus, 18.3 g II in MeCN was stirred with ClCH2CH2O2Cl and 8.4 g NaHCO3 2 hr at 40° to give 81% I (R1 = ClCH2CH2).  
 IT 54952-63-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of bactericidal)  
 RN 54952-63-5 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, 2-chloroethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



✓ L69 ANSWER 102 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1975:57814 CAPLUS  
 DOCUMENT NUMBER: 82:57814  
 TITLE: Synthesis of derivatives of S-[1-(N-methyl-N-methylsulfonyl)carbamoylethyl]thio- and -dithiophosphoric acid  
 AUTHOR(S): Mandel'baum, Ya. A.; Itskova, A. L.; Mel'nikov, N. N.; Gar, K. A.; Bokarev, E. M.  
 CORPORATE SOURCE: USSR  
 SOURCE: Khimicheskie Sredstva Zashchity Rastenii (1972), 2,

302-5

CODEN: KSZRA6

DOCUMENT TYPE:

Journal

LANGUAGE:

Russian

AB Thiophosphoric acids (RO)R<sub>1</sub>P(X)SCHMeCONMe(SO<sub>2</sub>Me) I (R = Me, Et, Me<sub>2</sub>N, PrNH; R<sub>1</sub> = MeO, EtO, Me, Et; X = O, S) were prepared in 56-92.3% yields by reaction of (RO)R<sub>1</sub>P(X)SM (M = Metal) with MeCHClCONMe(SO<sub>2</sub>Me). In acaricidal toxicity tests, some I were twice as effective as (MeO)<sub>2</sub>P(S)OC<sub>6</sub>H<sub>4</sub>NO<sub>2</sub>-p.

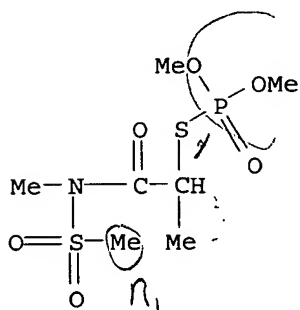
IT 54905-17-8P 54905-18-9P 54905-19-0P

54905-20-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and acaricidal properties of)

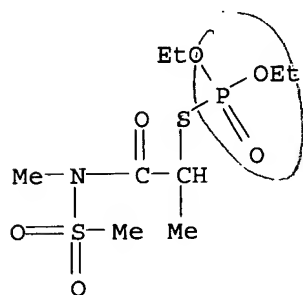
RN 54905-17-8 CAPLUS

CN Phosphorothioic acid, O,O-dimethyl S-[1-methyl-2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



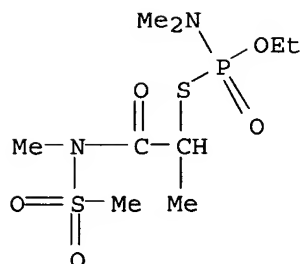
RN 54905-18-9 CAPLUS

CN Phosphorothioic acid, O,O-diethyl S-[1-methyl-2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



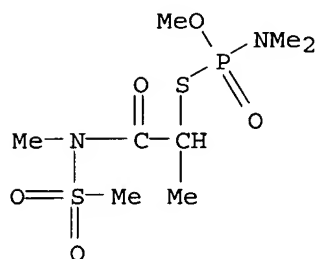
RN 54905-19-0 CAPLUS

CN Phosphoramidothioic acid, dimethyl-, O-ethyl S-[1-methyl-2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



RN 54905-20-3 CAPLUS

CN Phosphoramidothioic acid, dimethyl-, O-methyl S-[1-methyl-2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)

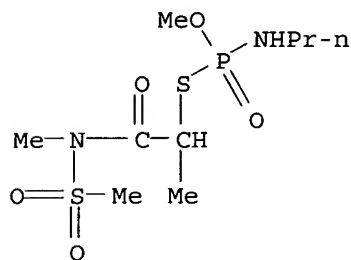


IT 54905-21-4P 54905-22-5P 54905-23-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

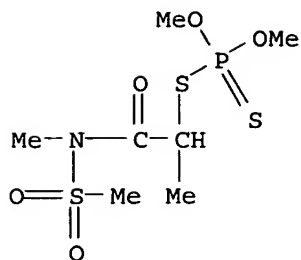
RN 54905-21-4 CAPLUS

CN Phosphoramidothioic acid, propyl-, O-methyl S-[1-methyl-2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)

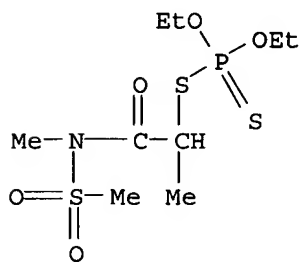


RN 54905-22-5 CAPLUS

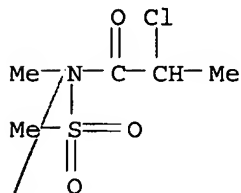
CN Phosphorodithioic acid, O,O-dimethyl S-[1-methyl-2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



RN 54905-23-6 CAPLUS  
 CN Phosphorodithioic acid, O,O-diethyl S-[1-methyl-2-methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



IT 38994-93-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with thiophosphate)  
 RN 38994-93-3 CAPLUS  
 CN Propanamide, 2-chloro-N-methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

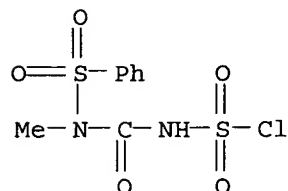


L69 ANSWER 103 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1974:108106 CAPLUS  
 DOCUMENT NUMBER: 80:108106  
 TITLE: Organic sulfonyl isocyanates  
 AUTHOR(S): Appel, Rolf; Montenarh, Mathias  
 CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Bonn, Bonn, Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1974), 107(2), 706-9  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 AB Reaction of RSO<sub>2</sub>NHR<sub>1</sub> (R = Me, Ph, or 4-MeC<sub>6</sub>H<sub>4</sub>; R<sub>1</sub> = H or Me) with ClSO<sub>2</sub>NCO in C<sub>6</sub>H<sub>6</sub> under ice cooling or at 90-5° gave the corresponding RSO<sub>2</sub>NR<sub>1</sub>CONHSO<sub>2</sub>Cl (I) or RSO<sub>2</sub>NCO (II), resp. Hydrolysis or refluxing of I in C<sub>6</sub>H<sub>6</sub> gave RSO<sub>2</sub>NR<sub>1</sub>CONH<sub>2</sub> or II, resp.  
 IT 52072-79-4P 52072-80-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

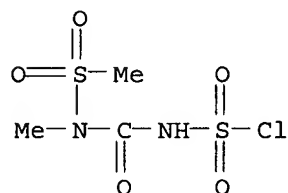
RN 52072-79-4 CAPLUS

CN Sulfamoyl chloride, [[methyl(phenylsulfonyl)amino]carbonyl]- (9CI) (CA  
INDEX NAME)



RN 52072-80-7 CAPLUS

CN Sulfamoyl chloride, [[methyl(methylsulfonyl)amino]carbonyl]- (9CI) (CA  
INDEX NAME)



L69 ANSWER 104 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1973:551614 CAPLUS  
DOCUMENT NUMBER: 79:151614  
TITLE: Crosslinking of hydrophilic colloids  
INVENTOR(S): Kyburz, Rolf  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G.  
SOURCE: Ger. Offen., 44 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| DE 2309098             | A1   | 19730913 | DE 1973-2309098 | 19730223   |
| CH 563598              | A    | 19750630 | CH 1972-2722    | 19720225   |
| FR 2173009             | A1   | 19731005 | FR 1973-4535    | 19730208   |
| CA 1008848             | A1   | 19770419 | CA 1973-163607  | 19730213   |
| US 4001201             | A    | 19770104 | US 1973-333247  | 19730216   |
| US 333247              | A1   | 19760316 |                 |            |
| GB 1416462             | A    | 19751203 | GB 1973-8287    | 19730220   |
| GB 1416463             | A    | 19751203 | GB 1974-52240   | 19730220   |
| BE 795839              | A1   | 19730823 | BE 1973-127993  | 19730223   |
| IT 977477              | A    | 19740910 | IT 1973-48413   | 19730223   |
| JP 48095450            | A2   | 19731207 | JP 1973-21797   | 19730224   |
| JP 57024535            | B4   | 19820525 |                 |            |
| PRIORITY APPLN. INFO.: |      |          | CH 1972-2722    | A 19720225 |

AB Organic crosslinking agents containing sulfonyl linkages are used as hardeners in

photog. gelatin emulsions. Thus, 0.1 mole  $\text{H}_2\text{NSO}_2\text{NH}_2$ , 1.1 mole 3-chloropropionyl chloride, and 0.3 ml  $\text{SbCl}_5$  are reacted at  $70-80^\circ$ , and the  $(\text{ClCH}_2\text{CO}_2\text{NH})_2\text{SO}_2$  (I) produced is collected. To 6 ml 6% aqueous gelatin are added 1 ml 1% aqueous dye solution, 5 ml  $\text{H}_2\text{O}$ , and 1 ml 0.0025M I. This solution is coated on a cellulose triacetate support, and the swelling of the coating under various temperature and humidity conditions measured. Improved resistance to swelling is observed compared to a I-free solution

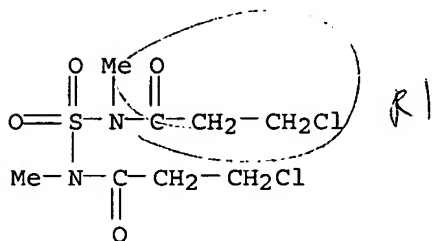
IT 50695-61-9

RL: USES (Uses)

(photographic hardening agent)

RN 50695-61-9 CAPLUS

CN Propanamide, N,N'-sulfonylbis[3-chloro-N-methyl- (9CI) (CA INDEX NAME)



L69 ANSWER 105 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1973:124224 CAPLUS

DOCUMENT NUMBER: 78:124224

TITLE: Syntheses of imide derivatives

AUTHOR(S): Kato, Kiyoshi; Yoshida, Matayasu; Ishikawa, Yoichiro

CORPORATE SOURCE: Gov. Ind. Res. Inst., Osaka, Japan

SOURCE: Yuki Gosei Kagaku Kyokaishi (1972), 30(10), 897-9

CODEN: YGKKAE; ISSN: 0037-9980

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

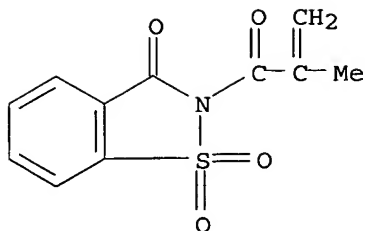
AB 2-cis- $\Delta^4$ -Tetrahydrophthalimidoethyl (70.2%), phthalimidomethyl (85.7%), 2-phthalimidoethyl (64.4%), and 2-naphthalimidoethyl (100%) acrylates, 2-cis- $\Delta^4$ -tetrahydrophthalimidoethyl (72.6%), 2-naphthalimidoethyl (100%), and 2-o-sulfobenzimidomethyl methacrylates (74.3%), N-acryloylphthalimide (72.1%), N-methacryloyl succinimide (93.4%), N-methacryloylphthalimide (94.4%) and N-methacryloyl-o-sulfobenzimidomethyl (93.6%) were prepared by the condensation of acryloyl chloride or methacryloyl chloride with the imidoalc. or imide and  $\text{NEt}_3$  at  $20-40^\circ$  in MeCN,  $\text{Me}_2\text{CO}$ , dioxane, benzene, or DMF. 2-Phthalimidoethyl methacrylate (93.4%) was prepared by esterification of methacrylic acid with N-(2-hydroxyethyl)phthalimide in the presence of p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and p-(HO)C<sub>6</sub>H<sub>4</sub> in benzene.

IT 40581-15-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

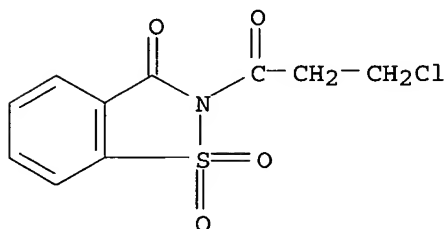
RN 40581-15-5 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(2-methyl-1-oxo-2-propenyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



L69 ANSWER 106 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1972:564667 CAPLUS  
 DOCUMENT NUMBER: 77:164667  
 TITLE: 2-Substituted 1,2-benzisothiazolin-3-one 1,1-dioxides  
 INVENTOR(S): Chiyomaru, Isao; Ikeda, Takuro; Takida, Kiyoshi  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

|    | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
|    | JP 47020158                                                                                                                                                                                                                                                                                                                                                                 | B4   | 19720927 | JP 1971-10094   | 19710227 |
| GI | For diagram(s), see printed CA Issue.                                                                                                                                                                                                                                                                                                                                       |      |          |                 |          |
| AB | The title compds. (I), antibacterial and antifungal for plants, were prepared by treating saccharin (II) with chloroformates. Thus, II was treated with ClCOEt in C <sub>6</sub> H <sub>6</sub> in the presence of pyridine to give 92.1 I (R = Et). I (R = Me; (CH <sub>2</sub> ) <sub>2</sub> Cl, iso-Pr, Ph; p-MeC <sub>6</sub> H <sub>4</sub> ) were similarly prepared |      |          |                 |          |
| IT | 37952-91-3P<br>RL: SPN (Synthetic preparation); PREP (Preparation)<br>(preparation of)                                                                                                                                                                                                                                                                                      |      |          |                 |          |
| RN | 37952-91-3 CAPLUS                                                                                                                                                                                                                                                                                                                                                           |      |          |                 |          |
| CN | 1,2-Benzisothiazol-3(2H)-one, 2-(3-chloro-1-oxopropyl)-, 1,1-dioxide (9CI)<br>(CA INDEX NAME)                                                                                                                                                                                                                                                                               |      |          |                 |          |



L69 ANSWER 107 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1972:539387 CAPLUS  
 DOCUMENT NUMBER: 77:139387  
 TITLE: Alkoxysulfonyl isocyanates  
 AUTHOR(S): Lattrell, Rudolf; Lohaus, Gerhard  
 CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt/M., Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1972), 105(9), 2800-4  
 CODEN: CHBEAM; ISSN: 0009-2940



DOCUMENT TYPE: Journal

LANGUAGE: German

AB Highly reactive title compds. ROSO<sub>2</sub>NCO (R = Me, Et, Pr, Me<sub>2</sub>CHCH<sub>2</sub>, n-C<sub>7</sub>H<sub>17</sub>, CH<sub>2</sub>:CHCH<sub>2</sub>, or MeOCH<sub>2</sub>CH<sub>2</sub>) were prepared in ≤77% yield by thermal decomposition of ROSO<sub>2</sub>NHCOR<sub>1</sub> (I, R<sub>1</sub> = 2,4,6-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>O, 2,6,4-Cl<sub>2</sub>PhC<sub>6</sub>H<sub>2</sub>O, p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NEt, or succinimido). I were obtained by reaction of ClSO<sub>2</sub>NCO with R<sub>1</sub>H via ClSO<sub>2</sub>NHCOR<sub>1</sub>, which then reacted with ROH.

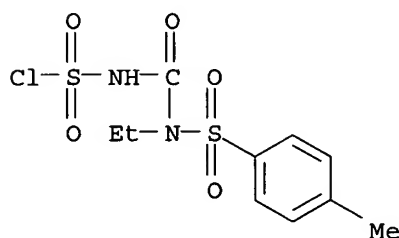
IT 37477-72-8P 37477-77-3P 37602-06-5P

37602-09-8P 37602-10-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

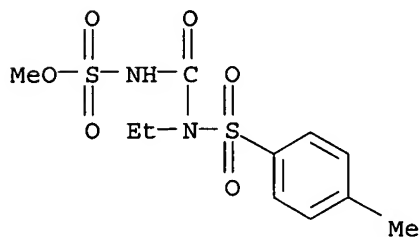
RN 37477-72-8 CAPLUS

CN Sulfamoyl chloride, [[ethyl[(4-methylphenyl)sulfonyl]amino]carbonyl]-  
(9CI) (CA INDEX NAME)



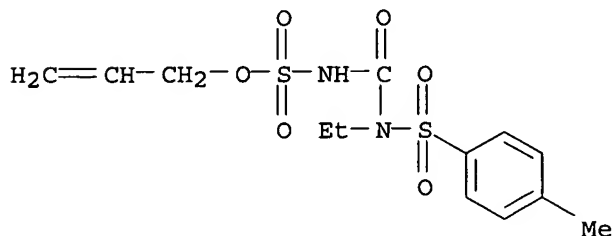
RN 37477-77-3 CAPLUS

CN Sulfamic acid, [[ethyl[(4-methylphenyl)sulfonyl]amino]carbonyl]-, methyl  
ester (9CI) (CA INDEX NAME)

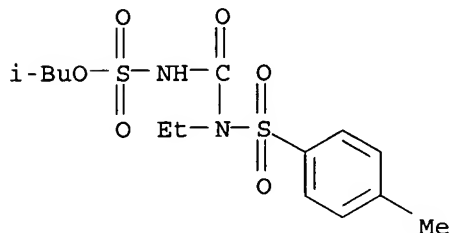


RN 37602-06-5 CAPLUS

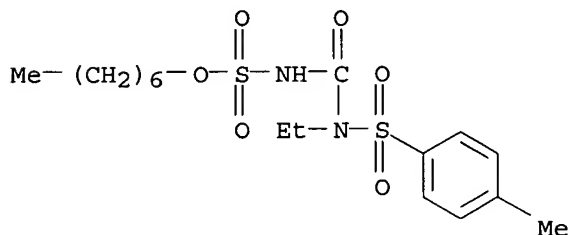
CN Sulfamic acid, [[ethyl[(4-methylphenyl)sulfonyl]amino]carbonyl]-, 2-propenyl  
ester (9CI) (CA INDEX NAME)



RN 37602-09-8 CAPLUS  
 CN Sulfamic acid, [[ethyl[(4-methylphenyl)sulfonyl]amino]carbonyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



RN 37602-10-1 CAPLUS  
 CN Sulfamic acid, [[ethyl[(4-methylphenyl)sulfonyl]amino]carbonyl]-, heptyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 108 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1972:496207 CAPLUS

DOCUMENT NUMBER: 77:96207

TITLE: Polarographic study of sulfonamides. I.

N-carbonyl-containing alkyl(or aryl)sulfonamides

AUTHOR(S): Supin, G. S.; Itskova, A. L.; Mandel'baum, Ya. A.

CORPORATE SOURCE: Vses. Nauchno-Issled. Inst. Khim. Sredstv Zashch. Rast., Moscow, USSR

SOURCE: Zhurnal Obshchei Khimii (1972), 42(6), 1186-90

CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Polarog. data are tabulated for 34 compds. of general types  $RSO_2NR_1R_2$  ( $R = \text{Me, Ph, p-ClC}_6\text{H}_4, \text{p-MeC}_6\text{H}_4, 2,4\text{-Cl}_2\text{C}_6\text{H}_3$ ;  $R_1 = \text{H, Me, Et, Pr, Bu, CHMe}_2$ ;  $R_2 = \text{Et, Pr, COCH}_2\text{Cl, COCHMeCl}$ ),  $RSO_2NR_1COCH_2SP(X)(OEt)_2$  ( $R = \text{Me, Et, p-ClC}_6\text{H}_4$ ;  $R_1 = \text{H, Me, Et, Pr, Bu}$ ;  $X = \text{O, S}$ ), and  $MeSO_2NR_1COCH_2SP(O)(OEt)R_3$  ( $R_3 = \text{Ph, NHPr, NHCH}_2\text{CHMe}_2, \text{NMe}_2, \text{NEt}_2, \text{NHET}$ ). Sulfonamides with electron-acceptor groups in either part of the mol. are reduced polarog. by cleavage of the S-N bond, and the half-wave potentials or wave heights are independent of the pH provided that the N atom is completely substituted; the amides with 1 NH residue can dissociate by loss of  $H^+$  and their anionic form is incapable of reduction, so that with pH >3-4 their polarog. waves become kinetic and vanish at pH >7. Derivs. of phosphoromono(and di)thioic acids show evidence of transmission of electronic substituent effects through the P atom. Increased chain length of alkyl groups in the amide portion facilitates the polarog. reduction of the

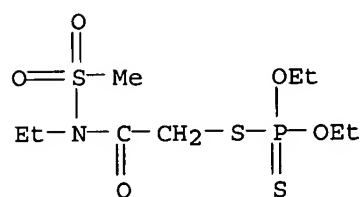
amides owing to increased electron donor ability of the bridge.

IT 22608-14-6 22726-07-4 38994-88-6  
 38994-89-7 38994-90-0 38994-91-1  
 38994-92-2 38994-93-3 38994-94-4  
 38994-95-5 38994-98-8 38994-99-9  
 38995-00-5 38995-01-6 38995-02-7  
 38995-03-8 38995-04-9 38995-06-1  
 38995-07-2 38995-08-3 38995-09-4  
 38995-10-7 38995-11-8 38995-12-9  
 38995-13-0 38995-14-1

RL: PROC (Process)  
 (polarography of)

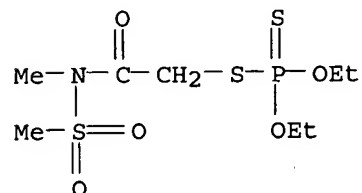
RN 22608-14-6 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



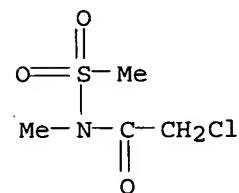
RN 22726-07-4 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



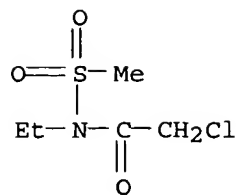
RN 38994-88-6 CAPLUS

CN Acetamide, 2-chloro-N-methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



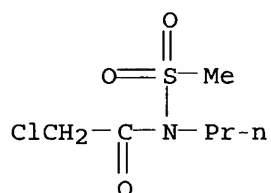
RN 38994-89-7 CAPLUS

CN Acetamide, 2-chloro-N-ethyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



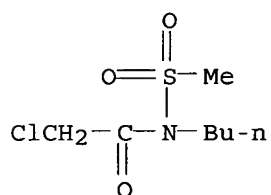
RN 38994-90-0 CAPLUS

CN Acetamide, 2-chloro-N-(methylsulfonyl)-N-propyl- (9CI) (CA INDEX NAME)



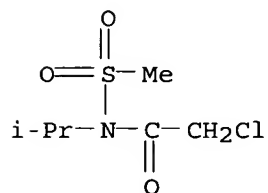
RN 38994-91-1 CAPLUS

CN Acetamide, N-butyl-2-chloro-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



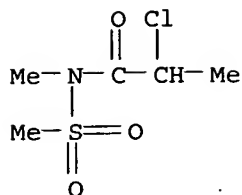
RN 38994-92-2 CAPLUS

CN Acetamide, 2-chloro-N-(1-methylethyl)-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

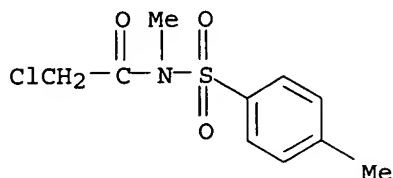


RN 38994-93-3 CAPLUS

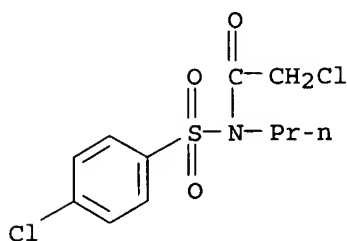
CN Propanamide, 2-chloro-N-methyl-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)



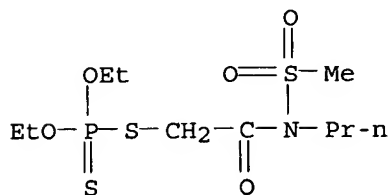
RN 38994-94-4 CAPLUS  
 CN Acetamide, 2-chloro-N-methyl-N-[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)



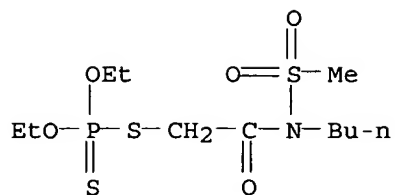
RN 38994-95-5 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-chlorophenyl)sulfonyl]-N-propyl- (9CI) (CA INDEX NAME)



RN 38994-98-8 CAPLUS  
 CN Phosphorodithioic acid, O,O-diethyl S-[2-[(methylsulfonyl)propylamino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)

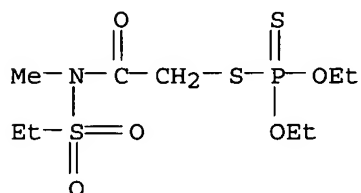


RN 38994-99-9 CAPLUS  
 CN Phosphorodithioic acid, S-[2-[butyl(methylsulfonyl)amino]-2-oxoethyl] O,O-diethyl ester (9CI) (CA INDEX NAME)



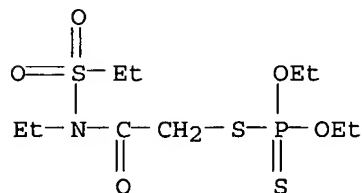
RN 38995-00-5 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[(ethylsulfonyl)methylamino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



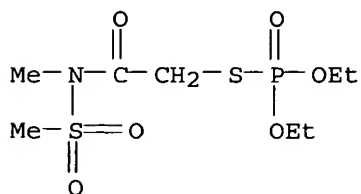
RN 38995-01-6 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[ethyl(ethylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



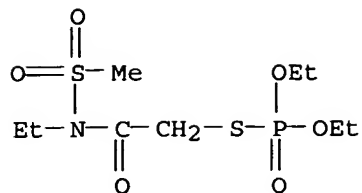
RN 38995-02-7 CAPLUS

CN Phosphorothioic acid, O,O-diethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



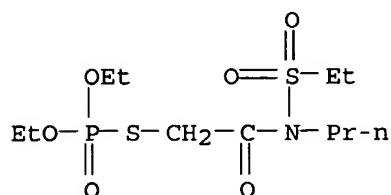
RN 38995-03-8 CAPLUS

CN Phosphorothioic acid, O,O-diethyl S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



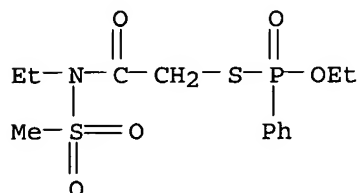
RN 38995-04-9 CAPLUS

CN Phosphorothioic acid, O,O-diethyl S-[2-[(ethylsulfonyl)propylamino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



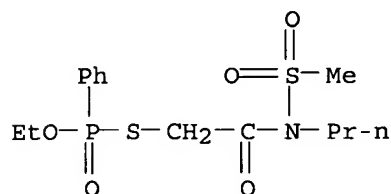
RN 38995-06-1 CAPLUS

CN Phosphonothioic acid, phenyl-, O-ethyl S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



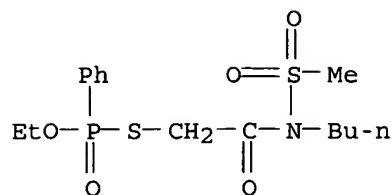
RN 38995-07-2 CAPLUS

CN Phosphonothioic acid, phenyl-, O-ethyl S-[2-[(methylsulfonyl)propylamino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



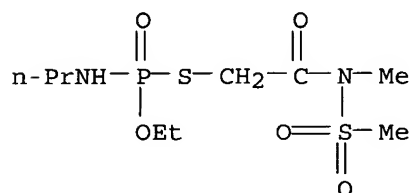
RN 38995-08-3 CAPLUS

CN Phosphonothioic acid, phenyl-, S-[2-[butyl(methylsulfonyl)amino]-2-oxoethyl] O-ethyl ester (9CI) (CA INDEX NAME)



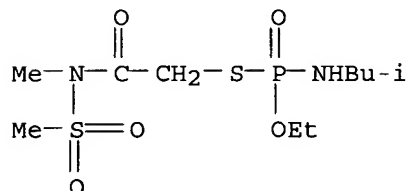
RN 38995-09-4 CAPLUS

CN Phosphoramidothioic acid, propyl-, O-ethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



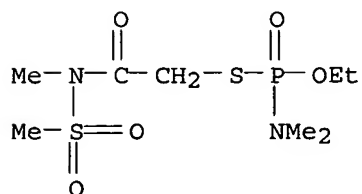
RN 38995-10-7 CAPLUS

CN Phosphoramidothioic acid, (2-methylpropyl)-, O-ethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



RN 38995-11-8 CAPLUS

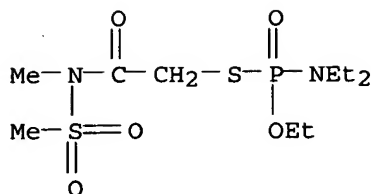
CN Phosphoramidothioic acid, dimethyl-, O-ethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



RN 38995-12-9 CAPLUS

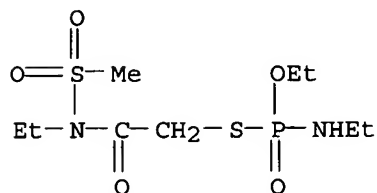
CN Phosphoramidothioic acid, diethyl-, O-ethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)





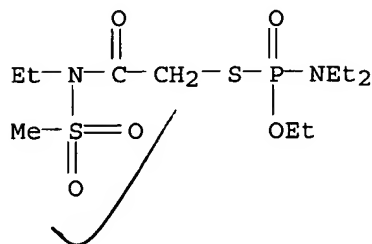
RN 38995-13-0 CAPLUS

CN Phosphoramidothioic acid, ethyl-, O-ethyl S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



RN 38995-14-1 CAPLUS

CN Phosphoramidothioic acid, diethyl-, O-ethyl S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



L69 ANSWER 109 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1972:109224 CAPLUS

DOCUMENT NUMBER: 76:109224

TITLE: Acaricide

INVENTOR(S): Itskova, A. L.; Gar, K. A.; Mandel'baum, Ya, A.; Fetisova, V. F.; Orlova, V. I.

SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1971, 48(32), 202.

CODEN: URXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| SU 267244  |      | 19711028 | SU              | 19680916 |

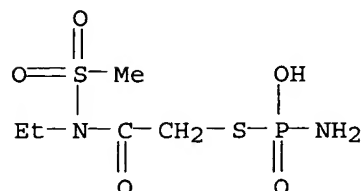
AB The thiophosphates I R = Me or Et, R1 = Me, Et, Pr, or iso-Pr, and R2 = H, Me or Et) were used as acaricides especially against cobweb mites.

IT 36525-37-8D, Phosphoramidothioic acid, S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester, derivatives

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(acaricides)

RN 36525-37-8 CAPLUS

CN Phosphoramidothioic acid, S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



L69 ANSWER 110 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1972:14533 CAPLUS

DOCUMENT NUMBER: 76:14533

TITLE: 2-Carbamoyl-1,2-benzisothiazolin-3-one 1,1-dioxides

INVENTOR(S): Mine, Seizo; Shioyama, Itaru

PATENT ASSIGNEE(S): Japan Agricultural Chemicals and Insecticides Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 6 pp.

CODEN: JAXXAD

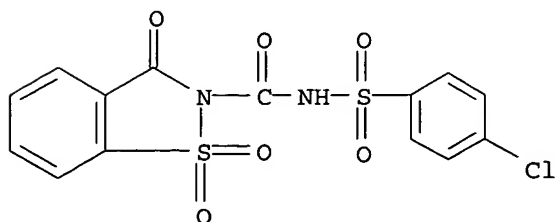
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

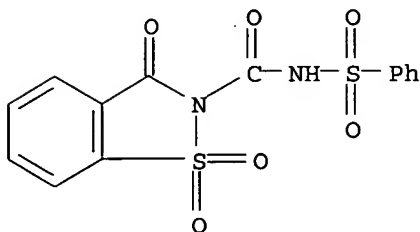
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

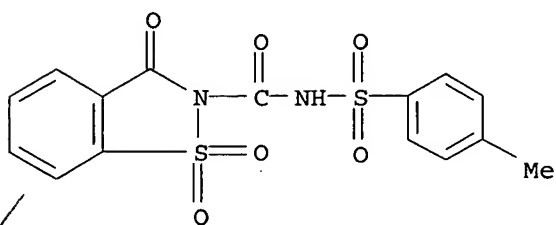
|    | PATENT NO.                                                                                                                                                                                                                                                     | KIND | DATE     | APPLICATION NO. | DATE     |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
|    | JP 46036613                                                                                                                                                                                                                                                    | B4   | 19711027 | JP              | 19691203 |
| GI | For diagram(s), see printed CA Issue.                                                                                                                                                                                                                          |      |          |                 |          |
| AB | I, useful as a fungicide for phytopathogenic fungi, was prepared Thus, 2-chlorocarbonylsaccharine was gradually added to a solution of PhCH2NH2 in dioxane and the mixture stirred 2 hr to give 71% I (R1 = PhCH2, R2 = H). Similarly prepared were 65 more I. |      |          |                 |          |
| IT | 28946-22-7P 28946-23-8P 28946-24-9P<br>35131-57-8P 35131-58-9P 35131-59-0P                                                                                                                                                                                     |      |          |                 |          |
|    | RL: SPN (Synthetic preparation); PREP (Preparation)<br>(preparation of)                                                                                                                                                                                        |      |          |                 |          |
| RN | 28946-22-7 CAPLUS                                                                                                                                                                                                                                              |      |          |                 |          |
| CN | 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-chlorophenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)                                                                                                                                                  |      |          |                 |          |



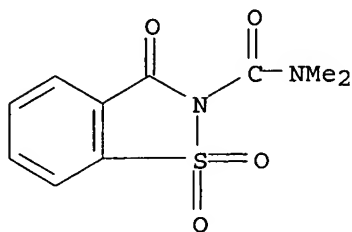
RN 28946-23-8 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N-(phenylsulfonyl)-,  
 1,1-dioxide (9CI) (CA INDEX NAME)



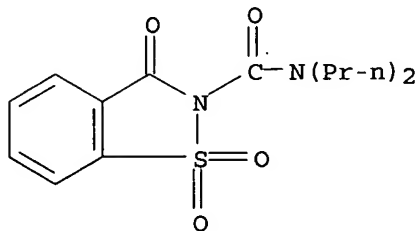
RN 28946-24-9 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-methylphenyl)sulfonyl]-3-oxo-  
 , 1,1-dioxide (9CI) (CA INDEX NAME)



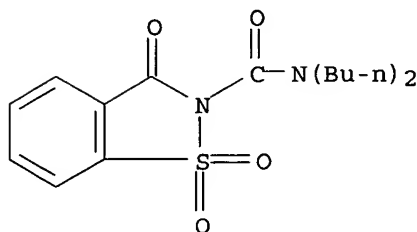
✓ RN 35131-57-8 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-dimethyl-3-oxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



✓ RN 35131-58-9 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N,N-dipropyl-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



RN 35131-59-0 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-dibutyl-3-oxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



L69 ANSWER 111 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1971:551529 CAPLUS  
 DOCUMENT NUMBER: 75:151529  
 TITLE: N,N-Disubstituted trifluoromethanesulfonamides  
 INVENTOR(S): Moore, George G. I.; Conway, Alvin C.  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.  
 SOURCE: U.S., 4 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| US 3609187 | A    | 19710928 | US 1969-816090  | 19690414 |

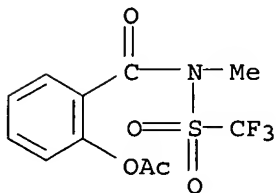
PRIORITY APPLN. INFO.: US 1969-816090 A 19690414

GI For diagram(s), see printed CA Issue.

AB N-Aroyl-N-alkyl- and N-aroyl-N-alkenyltrifluoromethanesulfonamides useful as longlasting anticonvulsant agents were prepared by treating N-alkyl and N-alkenyl-trifluoromethanesulfonamides with aroyl halides or anhydrides. For example, 12.1 g Et3N was added to 16.4 g N-methyltrifluoromethanesulfonamide and 17.5 g 3-chlorobenzoyl chloride in 300 ml CH2Cl2 to give N-(3-chlorobenzoyl)-N-methyltrifluoromethanesulfonamide (I).

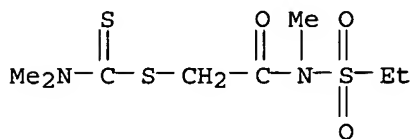
IT **34310-38-8P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 34310-38-8 CAPLUS  
 CN Salicylamide, N-methyl-N-[(trifluoromethyl)sulfonyl]-, acetate (ester)  
 (8CI) (CA INDEX NAME)

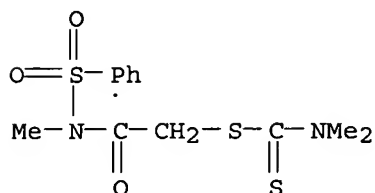


L69 ANSWER 112 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1971:63950 CAPLUS  
 DOCUMENT NUMBER: 74:63950  
 TITLE: Dithiocarbamates  
 INVENTOR(S): Konecny, Vaclav  
 SOURCE: Czech., 4 pp.  
 CODEN: CZXXA9  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Czech  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

|    | PATENT NO.                                                                                                                                                                                                                                                                                                                                                                            | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
|    | CS 134155                                                                                                                                                                                                                                                                                                                                                                             |      | 19691115 | CS              | 19680129 |
| AB | Title compds., R1R2NCS2CH(R3)(CH2)nCOR4, with insecticide, fungicide, and herbicide activity, are obtained by reaction of R1R2NH, CS2, and XCH(R3)(CH2)nCOR4 (X = Cl, Br). Thus, an aqueous solution of BrCH2CH2CO2Na was stirred with CS2, the mixture treated dropwise with aqueous Me2NH and heated at 65° to give Me2NCS2CH2CH2CO2Na. Similarly prepared were 10 addnl. products. |      |          |                 |          |
| IT | 30895-93-3P 30895-94-4P<br>RL: SPN (Synthetic preparation); PREP (Preparation)<br>(preparation of)                                                                                                                                                                                                                                                                                    |      |          |                 |          |
| RN | 30895-93-3 CAPLUS                                                                                                                                                                                                                                                                                                                                                                     |      |          |                 |          |
| CN | Carbamodithioic acid, dimethyl-, 2-[(ethylsulfonyl)methylamino]-2-oxoethyl ester (9CI) (CA INDEX NAME)                                                                                                                                                                                                                                                                                |      |          |                 |          |



RN 30895-94-4 CAPLUS  
 CN Carbamodithioic acid, dimethyl-, 2-[methyl(phenylsulfonyl)amino]-2-oxoethyl ester (9CI) (CA INDEX NAME)



L69 ANSWER 113 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1970:425448 CAPLUS  
 DOCUMENT NUMBER: 73:25448  
 TITLE: Fungicidal 2-(ar)alkylcarbamoylsaccharins  
 INVENTOR(S): Shioyama, Osamu; Mine, Seizo; Murata, Kikuzo  
 PATENT ASSIGNEE(S): Japan Agricultural Chemicals Co., Ltd.  
 SOURCE: Ger. Offen., 38 pp.  
 CODEN: GWXXBX

DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| DE 1953422             | A    | 19700514 | DE 1969-1953422 | 19691023   |
| DE 1953422             | B2   | 19740801 |                 |            |
| DE 1953422             | C3   | 19750327 |                 |            |
| JP 48040734            | B4   | 19731203 | JP 1968-77381   | 19681025   |
| GB 1278111             | A    | 19720614 | GB 1969-1278111 | 19691021   |
| US 3699228             | A    | 19721017 | US 1969-868236  | 19691021   |
| PRIORITY APPLN. INFO.: |      |          | JP 1968-77381   | A 19681025 |
|                        |      |          | JP 1969-71023   | A 19690909 |

GI For diagram(s), see printed CA Issue.

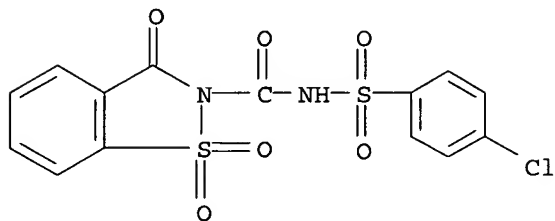
AB The fungicidal title compds. (I) were prepared in 34.8-97.0% yield either by reaction of the corresponding saccharin with RNCO in the presence of Et<sub>3</sub>N or pyridine or by reaction of the Na salt of saccharin and COCl<sub>2</sub> via the chlorocarbonyl derivative and subsequent reaction with the corresponding amines. Among the 68 compds. prepared were the following I (X, R, and R<sub>1</sub> given): O, Me, H; O, Ph, H; O, CH<sub>2</sub>Ph, H; O, CHMePh, H; O, CH<sub>2</sub>Ph, 6-Cl; O, Bu, H; O, Pr, H; O, CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-p, H; O, CH<sub>2</sub>CH<sub>2</sub>Ph, H; O, C<sub>6</sub>H<sub>4</sub>Me-p, H; O, Me, 5-MeO; S, CH<sub>2</sub>Ph, H. Compns. of fungicides containing I were reported. I had fungicidal activities especially against *Piricularia oryzae*, *Cladosporium cucumerinum*, and *Colletotrichum langenarium*.

IT 28946-22-7P 28946-23-8P 28946-24-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

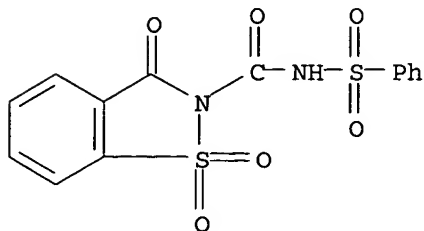
RN 28946-22-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-chlorophenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)

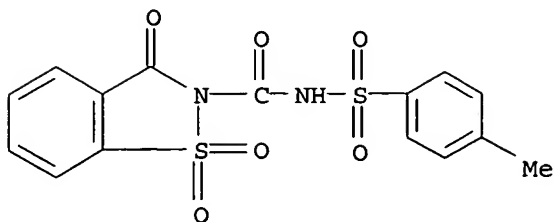


RN 28946-23-8 CAPLUS

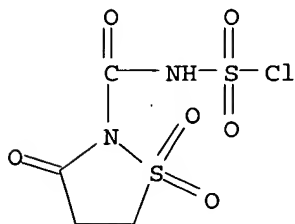
CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N-(phenylsulfonyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 28946-24-9 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-methylphenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



L69 ANSWER 114 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1970:100575 CAPLUS  
 DOCUMENT NUMBER: 72:100575  
 TITLE: Radical-induced reactions of olefins with chlorosulfonylisocyanate  
 AUTHOR(S): Guenther, Dieter; Soldan, Fritz  
 CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt/M.-Hoechst, Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1970), 103(3), 663-9  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 OTHER SOURCE(S): CASREACT 72:100575  
 GI For diagram(s), see printed CA Issue.  
 AB Reaction of excess ClSO<sub>2</sub>NCO with RCH:CHR<sub>1</sub> in the presence of free-radical producing peroxides gave 50-90% ClCHR<sub>1</sub>CHRSO<sub>2</sub>NCO [where R = H and R<sub>1</sub> = H, Me, Et, or Bu; R = R<sub>1</sub> = Me; or (R, R<sub>1</sub> = ) (CH<sub>2</sub>)<sub>4</sub>]. On the other hand, an excess of olefins in this reaction yielded 60-80% substituted N-(2-chloroethyl)-3-oxoisothiazolidine 1,1-dioxides (I). CH<sub>2</sub>:CHCl and excess ClSO<sub>2</sub>NCO gave a mixture of the telomers, Cl[CHClCH<sub>2</sub>]<sub>n</sub>SO<sub>2</sub>NCO (where n = 1, 2, or 3).  
 IT **26178-90-5P**  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 26178-90-5 CAPLUS  
 CN 2-Isothiazolidinecarboxamide, N-(chlorosulfonyl)-3-oxo-, 1,1-dioxide (8CI) (CA INDEX NAME)



L69 ANSWER 115 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1970:22825 CAPLUS  
 DOCUMENT NUMBER: 72:22825

TITLE: Surface film former to retard evaporation and extinguish hydrocarbon fires  
 INVENTOR(S): Francen, Vernon L.  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.  
 SOURCE: Ger. Offen., 36 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| DE 1920625  | A    | 19691106 | DE 1969-1920625 | 19690418 |
| DE 1920625  | B2   | 19760909 |                 |          |
| SE 365532   | B    | 19740325 | SE 1969-5001    | 19690409 |
| NL 6906068  | A    | 19691021 | NL 1969-6068    | 19690418 |
| NL 161679   | B    | 19791015 |                 |          |
| FR 2009827  | A5   | 19700213 | FR 1969-12138   | 19690418 |
| GB 1264681  | A    | 19720223 | GB 1969-1264681 | 19690418 |
| BR 6908211  | A0   | 19730104 | BR 1969-208211  | 19690418 |
| JP 48023161 | B4   | 19730711 | JP 1969-29715   | 19690418 |

PRIORITY APPLN. INFO.: US 1968-722630 A 19680419

AB A H<sub>2</sub>O-soluble salt of a fluoroaliphatic wetting compound of the formula RfQmZ (in which Rf is a fluorinated, saturated, monovalent nonaromatic C<sub>3</sub>-20 radical in which the C atoms are substituted only by F, Cl, or H with ≤1 Cl or H atom on 2 C atoms and 1 O or N atom bound to a C atom may be present; Qm, m = 0-2, represents an alkylene-, arylene-, sulfonamidoalkylene-, or carboxamidoalkylene radical; and Z represents a H<sub>2</sub>O-soluble anionic, cationic, or nonionic radical) is combined with a slightly H<sub>2</sub>O-soluble hydrocarbon wetting agent which is >0.02% soluble in H<sub>2</sub>O at 25° and capable of promoting the film formation of a normally nonfilm-forming fluorohydrocarbon wetting compound in <60 sec., a partially hydrolyzed protein, and H<sub>2</sub>O. This mixture is used as a strong film-forming blockade for extinguishing hydrocarbon fires and evaporation of flammable gases. Thus, a concentration of 0.36% C<sub>8</sub>F<sub>17</sub>SO<sub>2</sub>N(C<sub>2</sub>H<sub>5</sub>)C<sub>2</sub>H<sub>4</sub>OPO(OH)<sub>2</sub> plus 0.15% Pluronic P-94 formed a covering film in 45 sec. with no flashback. Data are given for various fluorohydrocarbons, wetting agents, stabilizers, and hydrolyzed proteins.

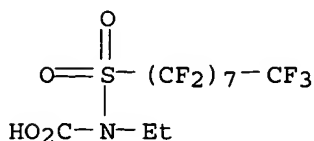
IT 27140-05-2

RL: USES (Uses)

(fire extinguishing with wetting agents and)

RN 27140-05-2 CAPLUS

CN Carbamic acid, ethyl[(heptadecafluorooctyl)sulfonyl]-, potassium salt (8CI) (CA INDEX NAME)



● K



L69 ANSWER 116 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1969:512627 CAPLUS  
 DOCUMENT NUMBER: 71:112627  
 TITLE: N-Methyl-4-chloro-3-sulfamoylbenzenesulfonamides  
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.  
 SOURCE: Fr., 6 pp.  
 CODEN: FRXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| FR 1535781 |      | 19680809 | FR              |          |
| DE 1568552 |      |          | DE              |          |
| GB 1188158 |      |          | GB              |          |
| US 3557153 |      | 19710000 | US              |          |
|            |      |          | DE              | 19660713 |

## PRIORITY APPLN. INFO.:

GI For diagram(s), see printed CA Issue.

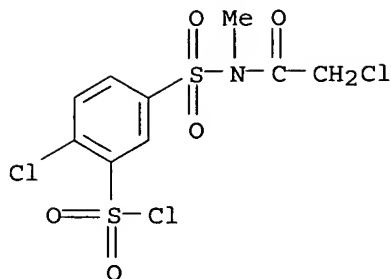
AB N-Methyl-4-chloro-3-(chlorosulfonyl)benzenesulfonamide (I) is acylated to give II compds. which are treated with NH<sub>3</sub> to give diamides III. A mixture of 30.4 g. I and 60 ml. Ac<sub>2</sub>O is heated 1 hr. at 80° to give 82% 1-chloro-2-chlorosulfonyl-4-(N-methyl-N-acetylsulfamoyl)-benzene (IV), m. 141-2°. A solution of 17.3 g. IV in 150 ml. tetrahydrofuran is treated with 20% NH<sub>3</sub> at 15-20° and the mixture is worked up to give 80% 1-chloro-2-sulfamoyl-4-(N-methyl-N-acetylsulfamoyl)benzene, m. 200°. Similarly prepared are the following II and III (R, m.p. II compound, m.p. III compound, and % yield III compound given): CH<sub>2</sub>Cl, 148°, 173-4°, 55; Et, 119°, 172-3°, 60; Pr, 110-11°, 168-9°, 58; MeCH:CH, , 162-3°, 71; 2-furyl, 99-100°, 195°, 54; Ph, 172-3°, 227°, 78; cyclopentylmethyl, 85-96°, 95-6°, 69; PhCH:CH, 178-9°, 196-7°, 56; hexyl, 96-8°, 183-4°, ; iso-Pr, 124°, 165-6°, ; Bu, 98, 152-3°, ; iso-Bu, 122-3°, 180-1°, ; amyl, 104°, 156-7°, ; n-heptyl, 96-8°, 116-18°, ; PhCH<sub>2</sub>, 205-7°, 86-8°; -, PhCH<sub>2</sub>CH<sub>2</sub>, 132°, 133°, ; and the following compds. (m.p. given): 4,3-Cl(ClSO<sub>2</sub>)C<sub>6</sub>H<sub>3</sub>SO<sub>2</sub>NEtAc, 104°; 4,3-Cl(H<sub>2</sub>NSO<sub>2</sub>)-C<sub>6</sub>H<sub>3</sub>SO<sub>2</sub>NEtAc, 195-6°; 1-chloro-2-chlorosulfonyl-4-(N-tetrahydrofurfuryl-N-acetylsulfamoyl)benzene, 121°; 1-chloro-2-sulfamoyl-4-(N-tetrahydrofurfuryl-N-acetylsulfamoyl)benzene, 137-9°.

IT 24018-25-5P 24028-64-6P

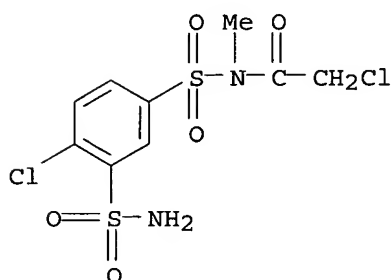
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 24018-25-5 CAPLUS

CN Benzenesulfonyl chloride, 2-chloro-5-[(chloroacetyl)methylsulfamoyl]-  
 (8CI) (CA INDEX NAME)



RN 24028-64-6 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-chloro-3-sulfamoylphenyl)sulfonyl]-N-methyl-  
 (8CI) (CA INDEX NAME)

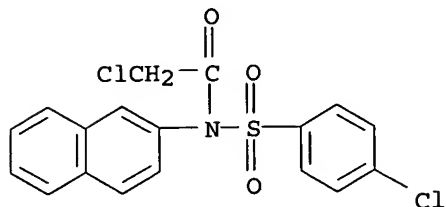


L69 ANSWER 117 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1969:76240 CAPLUS  
 DOCUMENT NUMBER: 70:76240  
 TITLE: Selective toxicity. IX. Relation between chemical structure and selective antimicrobial activities of haloacetamide derivatives  
 AUTHOR(S): Noguchi, Teruhisa; Hashimoto, Yoshinobu; Mori, Toshiro; Kano, Saburo  
 CORPORATE SOURCE: Nippon Soda Co., Ltd., Oisomachi, Japan  
 SOURCE: Yakugaku Zasshi (1968), 88(12), 1620-37  
 CODEN: YKKZAJ; ISSN: 0031-6903  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB Antimicrobial activity was examined for ArNRCOCH2X where Ar was limited to the 2,4,5-substituted Ph or naphthyl group. The compds. showed stronger activity when X was F, Cl, Br, and I in that order and also showed antimicrobial activity of a wide spectrum. Compds. having electroneg. substituents in the 2-, 4-, and 5-positions showed a good activity, and (2,4,5-trichlorophenyl)moniodoacetamide and (2,4,5-trichlorophenyl)monobromoacetamide were especially good, showing a broad spectrum and excellent therapeutic effect against exptl. trichophytosis in animals. All the compds. except those with F showed a low acute toxicity. The characteristic pharmacol. action included hypothermia and a slight sedative action. F-substituted compds. of this series are aconitase inhibitors of the TCA cycle, have a strong toxicity in mammals, and show central stimulation and inhibition of respiratory and circulatory organs.  
 IT 23543-22-8 23543-23-9 23543-42-2  
 23543-43-3 23543-44-4 23554-64-5  
 23605-47-2 23627-22-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(bactericidal activity of)

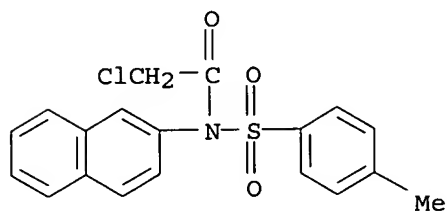
RN 23543-22-8 CAPLUS

CN Acetamide, 2-chloro-N-[(p-chlorophenyl)sulfonyl]-N-2-naphthyl- (8CI) (CA INDEX NAME)



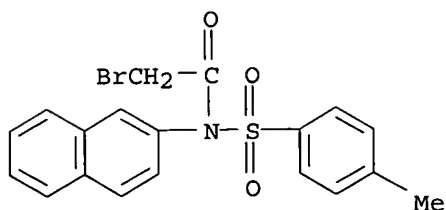
RN 23543-23-9 CAPLUS

CN Acetamide, 2-chloro-N-2-naphthyl-N-(p-tolylsulfonyl)- (8CI) (CA INDEX NAME)



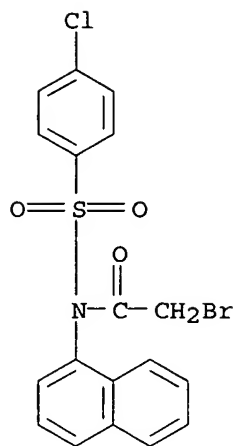
RN 23543-42-2 CAPLUS

CN Acetamide, 2-bromo-N-2-naphthyl-N-(p-tolylsulfonyl)- (8CI) (CA INDEX NAME)



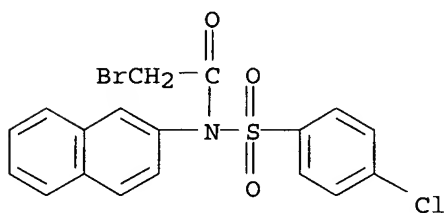
RN 23543-43-3 CAPLUS

CN Acetamide, 2-bromo-N-[(p-chlorophenyl)sulfonyl]-N-1-naphthyl- (8CI) (CA INDEX NAME)



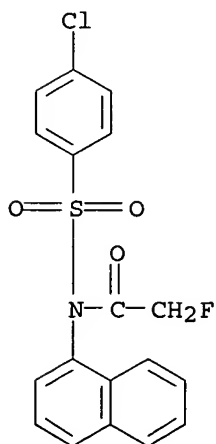
RN 23543-44-4 CAPLUS

CN Acetamide, 2-bromo-N-[(p-chlorophenyl)sulfonyl]-N-2-naphthyl- (8CI) (CA INDEX NAME)



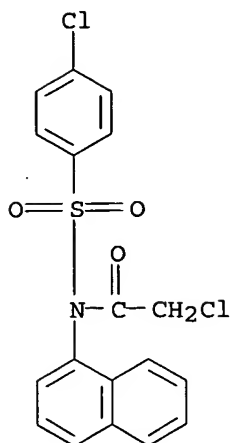
RN 23554-64-5 CAPLUS

CN Acetamide, N-[(p-chlorophenyl)sulfonyl]-2-fluoro-N-1-naphthyl- (8CI) (CA INDEX NAME)

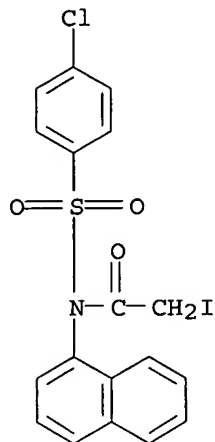


RN 23605-47-2 CAPLUS

CN Acetamide, 2-chloro-N-[(p-chlorophenyl)sulfonyl]-N-1-naphthyl- (8CI) (CA INDEX NAME)



RN 23627-22-7 CAPLUS  
 CN Acetamide, N-[(p-chlorophenyl)sulfonyl]-2-iodo-N-1-naphthyl- (8CI) (CA  
 INDEX NAME)



L69 ANSWER 118 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1969:57061 CAPLUS  
 DOCUMENT NUMBER: 70:57061  
 TITLE: Alkylation of dialkyldithiophosphoric acid salts  
 AUTHOR(S): Itskova, A. L.; Soifer, R. S.; Mandel'baum, Ya. A.;  
 Mel'nikov, N. N.  
 CORPORATE SOURCE: Vses. Nauch.-Issled. Inst. Khim. Sredstv Zashch.  
 Rast., Moscow, USSR  
 SOURCE: Zhurnal Obshchei Khimii (1968), 38(11), 2556-61  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 AB Refluxing 5.7 g. (EtO)2PS2K and 5 g. ClCH2CONEtSO2Me (I) in C6H6 5 hrs.  
 gave 74.3% (EtO)2PS2CH2CONRSO2R1 (R = Et, R2 = Me), d20 1.2710, n20D  
 1.5170. Similarly were prepared 60-75% yields of analogs (R and R1 shown,

resp.): Me, Me, 1.3261, 1.5315; H, Et, m. 55-7°; Bu, Et, 1.1926, 1.5050; H, C<sub>6</sub>H<sub>3</sub>Cl<sub>2</sub>-3,4 m. 53-4°. Also prepared was (EtO)<sub>2</sub>PS<sub>2</sub>CH<sub>2</sub>COR<sub>2</sub> (R<sub>2</sub> = tetrahydro-1-quinolyl, 1.2424, 1.5835. Refluxing 7.7 g. (MeO)<sub>2</sub>PS<sub>2</sub>Na with 5 g. I in Me<sub>2</sub>CO 5 hrs. gave after separation on a chromatographic column (no details) 44.7% (MeO)<sub>2</sub>PS<sub>2</sub>CH<sub>2</sub>CONEtSO<sub>2</sub>Me, 1.3581, 1.5340, and 19.4% MeO(MeS)P(O)SCH<sub>2</sub>CONEtSO<sub>2</sub>Me, 1.3654, 1.5385, as well as some (MeO)<sub>2</sub>(MeS)PS and (MeS)<sub>2</sub>(MeO)PS. Similar reaction of (MeO)<sub>2</sub>PS<sub>2</sub>K and tetrahydroquinolide of chloroacetic acid gave 45.5% (MeO)<sub>2</sub>PS<sub>2</sub>CH<sub>2</sub>CONC<sub>9</sub>H<sub>10</sub>, 1.2965, 1.5980, and 22.1% (MeO)(MeS)P(O)SCH<sub>2</sub>CONC<sub>9</sub>H<sub>10</sub>, 1.2763, 1.5860. Reaction of 4 g. (MeO)(MeS)POSK with 4 g. I in Me<sub>2</sub>CO gave in 5 hrs. some (MeS)<sub>2</sub>(MeO)PS and 19.4% (MeO)(MeS)P(O)SCH<sub>2</sub>CONEtSO<sub>2</sub>Me, 1.3654, 1.5385. Refluxing 16 g. (MeO)(MeS)POSK and 14 g. (MeO)<sub>2</sub>(MeS)PS in Me<sub>2</sub>CO 12 hrs. gave 24.3% (MeS)<sub>2</sub>(MeO)PS, b<sub>0.05</sub> 60-2°, 1.2506, 1.5340. To 17.1 g. (MeO)<sub>2</sub>PS<sub>2</sub>K was slowly added 15 g. (MeO)<sub>2</sub>(MeS)PS in Me<sub>2</sub>CO and the mixture refluxed 4 hrs. to give 94.6% MeO(MeS)POSK, m. 110-12° (Et<sub>2</sub>O). Similarly in 20 hrs. MeO(MeS)POSK and (MeS)<sub>2</sub>(MeO)PS gave 21.8% (MeS)<sub>2</sub>PO<sub>2</sub>K, did not m. 250°. Ir spectra were reported. The results are explained by multistep alkylation of the phosphorodithioates.

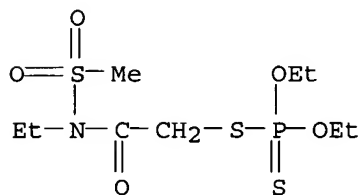
IT 22608-14-6P 22608-15-7P 22608-51-1P

22608-52-2P 22726-07-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

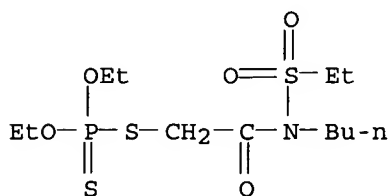
RN 22608-14-6 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[ethyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



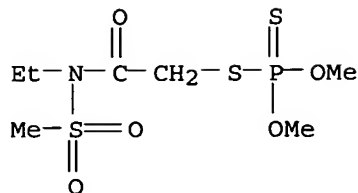
RN 22608-15-7 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl ester, S-ester with  
N-butyl-N-(ethylsulfonyl)-2-mercaptoacetamide (8CI) (CA INDEX NAME)

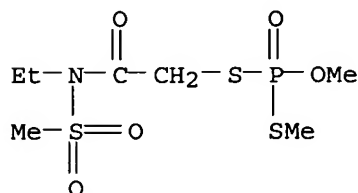


RN 22608-51-1 CAPLUS

CN Phosphorodithioic acid, O,O-dimethyl ester, S-ester with  
N-ethyl-2-mercapto-N-(methylsulfonyl)acetamide (8CI) (CA INDEX NAME)

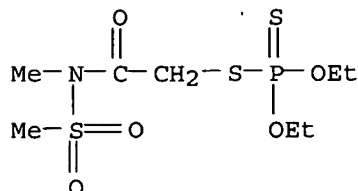


RN 22608-52-2 CAPLUS

CN Phosphorodithioic acid, O,S-dimethyl ester, S-ester with  
N-ethyl-2-mercapto-N-(methylsulfonyl)acetamide (8CI) (CA INDEX NAME)

RN 22726-07-4 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



L69 ANSWER 119 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1966:473470 CAPLUS

DOCUMENT NUMBER: 65:73470

ORIGINAL REFERENCE NO.: 65:13700e-f

TITLE: Ketenes. X. Heterocyclic systems derived from  
dimethyl-malonyl chloride

AUTHOR(S): Martin, James C.; Brannock, Kent C.; Meen, Ronald H.

CORPORATE SOURCE: Res. Labs., Eastman Kodak Co., Kingsport, TN

SOURCE: Journal of Organic Chemistry (1966), 31(9), 2966-72

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

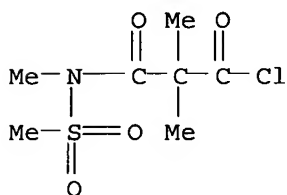
LANGUAGE: English

OTHER SOURCE(S): CASREACT 65:73470

AB cf, CA 65, 3759f. Dimethylmalonyl chloride reacted with a number of N-monosubstituted amides to afford dihydro-2-methylene-4H-1,3-oxazine-4,6(5H)-diones and with N-monosubstituted thioamides and N,N'-odisubstituted amidines to give the corresponding thiazine and pyrimidine analogs. Several reactions producing these heterocycles were described. The dihydro-2-methylene-4H-1,3-oxazine-4,6(5H)-diones rearranged to 3-oxoglutarimides if the methylene group was substituted with one or two groups other than hydrogen. The reaction of

dimethylmalonyl chloride with aromatic amides unsubstituted on the nitrogen gave 4H-1,3-oxazine-4,6(5H)-diones. A similar reaction with aliphatic amides unsubstituted on the nitrogen gave dihydro-2-methylene-4H-1,3-oxazine-4,6(5H)-diones; however, if triethylamine was used as an acid acceptor, dihydro-3-isobutyryl-2-methylene-4H-1,3-oxazine-1,3-oxazine-4,6(5H)-diones resulted. Imines having at least one  $\alpha$ -methylene group and dimethylmalonyl chloride gave substituted 2,4(1H,3H)-pyridinediones.

IT 10104-16-2, Malonamoyl chloride, N,2,2-trimethyl-N-(methylsulfonyl)-  
(preparation of)  
RN 10104-16-2 CAPLUS  
CN Malonamoyl chloride, N,2,2-trimethyl-N-(methylsulfonyl)- (7CI, 8CI) (CA  
INDEX NAME)



L69 ANSWER 120 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1964:3301 CAPLUS  
DOCUMENT NUMBER: 60:3301  
ORIGINAL REFERENCE NO.: 60:557b-c  
TITLE: Esters of mono- or dithiophosphoric, phosphonic, and  
phosphinic acids  
INVENTOR(S): Schrader, Gerhard  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: 3 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 1152407 | ---- | 19630808 | DE              | 19610614 |

AB To a stirred solution of 79 g. O,O-dimethyldithiophosphoric acid and 65 g. K<sub>2</sub>CO<sub>3</sub> in 300 ml. MeCN at 40° is added 93 g. ClCH<sub>2</sub>CONMeSO<sub>2</sub>Me in 100 ml. MeCN, the mixture stirred 2 hrs. at 60°, poured into 400 ml. ice water, and the separated oil extracted with 300 ml. C<sub>6</sub>H<sub>6</sub> and dried in vacuo at 60° to leave 63% RR1P(X)SCH<sub>2</sub>CONMeSO<sub>2</sub>Me (I) (R = R<sub>1</sub> = MeO, X = S). Similarly were prepared the following I (R, R<sub>1</sub>, X, and % yield given): MeO, MeO, O, 93; EtO, EtO, S, 81; EtO, EtO, O, 70; Me, EtO, S, 59; Et, EtO, S, 63; Me, Me, S, 58 (m. 105°).

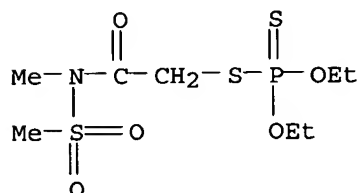
IT 22726-07-4, Phosphorodithioic acid, O,O-diethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide 38995-02-7, Phosphorothioic acid, O,O-diethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide 89909-90-0, Phosphorodithioic acid, O,O-dimethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide 89909-92-2, Phosphorothioic acid, O,O-dimethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide 90221-41-3, Phosphonodithioic acid,



methyl-, O-ethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide **90482-75-0**, Phosphonodithioic acid, ethyl-, O-ethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide  
(preparation of)

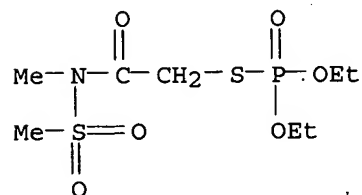
RN 22726-07-4 CAPLUS

CN Phosphorodithioic acid, O,O-diethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



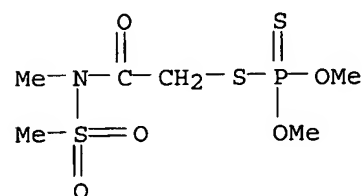
RN 38995-02-7 CAPLUS

CN Phosphorothioic acid, O,O-diethyl S-[2-[methyl(methylsulfonyl)amino]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



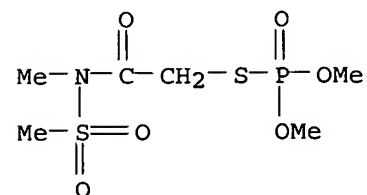
RN 89909-90-0 CAPLUS

CN Phosphorodithioic acid, O,O-dimethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide (7CI) (CA INDEX NAME)

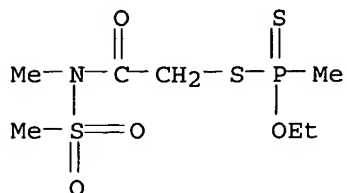


RN 89909-92-2 CAPLUS

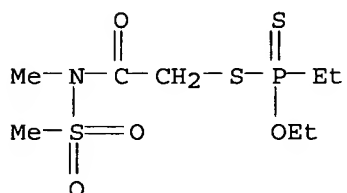
CN Phosphorothioic acid, O,O-dimethyl ester, S-ester with 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide (7CI) (CA INDEX NAME)



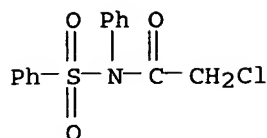
RN 90221-41-3 CAPLUS  
 CN Phosphonodithioic acid, methyl-, O-ethyl ester, S-ester with  
 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide (7CI) (CA INDEX NAME)



RN 90482-75-0 CAPLUS  
 CN Phosphonodithioic acid, ethyl-, O-ethyl ester, S-ester with  
 2-mercapto-N-methyl-N-(methylsulfonyl)acetamide (7CI) (CA INDEX NAME)



L69 ANSWER 121 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1963:448038 CAPLUS  
 DOCUMENT NUMBER: 59:48038  
 ORIGINAL REFERENCE NO.: 59:8637b-c  
 TITLE: Sulfanilidides. N-Chloroacetyl derivatives of  
 benzenesulfanilidides, benzenesulfophenetidides, and  
 benzenesulfotoluidides  
 AUTHOR(S): Malinovskii, M. S.; Solomko, Z. F.; Glushko, L. P.  
 SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition)  
 (1963), 29(6), 614-15  
 CODEN: UKZHAU; ISSN: 0041-6045  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI For diagram(s), see printed CA Issue.  
 AB XC6H4SO2NNaC6H4Y and ClCH2COC1 form the following I, potential fungicides  
 (X, Y, and m.p. given): H, p-Me, 132.5-3°; H, o-MeO,  
 134-4.5°; H, o-Me, 128.5-9°; p-Me, p-MeO, 130-1°;  
 p-Me, p-EtO, 114.5-15°; p-Cl, p-Me, 134.5-5°; p-Cl, p-EtO,  
 127.5-8.5°; p-Cl, o-MeO, 126-7°; p-Br, p-EtO, 134-5°;  
 H, p-Br, 163.5-4.5°.  
 IT 72310-04-4, Acetanilide, 2-chloro-N-(phenylsulfonyl)-  
 (derivs.)  
 RN 72310-04-4 CAPLUS  
 CN Acetamide, 2-chloro-N-phenyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



L69 ANSWER 122 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1963:448037 CAPLUS

DOCUMENT NUMBER: 59:48037

ORIGINAL REFERENCE NO.: 59:8636f-h,8637a-b

TITLE: 2-Bromo-4-methylphenyl alkyl and aryl sulfides and sulfones

AUTHOR(S): Dandegaonker, S. H.; Rangaswamy, J. R.

CORPORATE SOURCE: Karnatak Univ., Dharwar, India

SOURCE: Journal of the Karnatak University (1962), 6, 19-24

CODEN: JKAUAR; ISSN: 0453-3348

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB 2,4-BrMeC6H3SH (I) was prepared and its alkyl and aryl sulfide derivs. by treating the alkyl or aryl halide with the Na salt of I. The sulfides were then oxidized to the corresponding sulfones with H2O2 in HOAc. 2,4-BrMeC6H3NH2 (18 g.) was suspended in 30 mL. water, 30 mL. concentrated HCl, and 7 g. NaNO2 in 25 mL. water, and the clear diazonium solution added in small portions with vigorous stirring to 30 g. K Et xanthate in 70 mL. water heated at 70-80°. Stirring was continued for an addnl. 2 h., a heavy red oil settled to the bottom, and the clear aqueous upper layer

extracted

with ether. The exts. were dried over anhydrous Na2SO4, the solvent removed, the residue added to the oil, and then 100 mL. alc., 12 g. KOH, and 2 g. glucose added and the mixture refluxed on a water bath for 7 h. The alc. was distilled, the residue cooled, treated with 5 mL. H2SO4 (23%) and 20 g. Zn dust, the mixture heated on a water bath for 0.5 h., and then refluxed with 100 mL. C6H6 for 1 h. The C6H6 layer was separated, dried over anhydrous Na2SO4, the solvent removed, and the residue distilled to give 18 g. (90%) I, b6 107-8°, n25D 1.6148. I (3.0 g.) was added with vigorous shaking to NaOEt (prepared from 0.8 g. Na and 10 mL. absolute EtOH). The alkyl or aryl halide (1 mol) was added with stirring to the Na thiophenolate, the mixture refluxed for 3 h., the mixture made alkaline with 10% aqueous KOH, and then

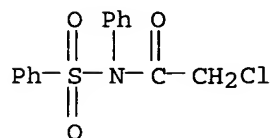
diluted

with H2O. Liquid sulfides were isolated by ether extraction, and solid sulfides

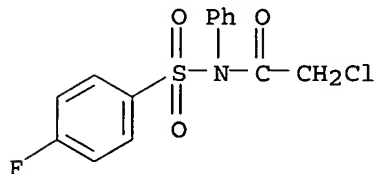
isolated by filtration. The sulfide (1.0 g.) was dissolved in glacial HOAc, 20 mL. H2O2 (30%) added, the mixture heated on a water bath for 3 h., cooled and diluted with water. The solid sulfones were filtered off and recrystd. and the liquid sulfones extracted with ether. Sulfides (II) and corresponding sulfones were prepared (R, % yield, m.p. or b.p., n25D % yield sulfone derivative, m.p. or b.p., and n27D given): Me, 67, 124-5°/8, 1.6120, 72, 96°, -; Et, 89, 132-3°/2, 1.5985, 45, 185-6°/7, 1.5845; Pr, 68, 139-40°/2, 1.5881, 54, 200°/7, 1.5770; Bu, 83, 154-5°/3, 1.5722, 55, 210-11°/7, 1.5620; amyl, 75, 163-4°/3, 1.5469, 36, 220-1°/7, 1.5230; HOCH2CH2, 57, 185-6°/3, 1.6044, 36, 215-16°/7, 1.5715; p-O2NC6H4, 64, 175°, -, 72, 146°, -; PhCH2, 67, 195-7°/6 mm., 1.6265, 82, 286°, -.

IT 72310-04-4, Acetanilide, 2-chloro-N-(phenylsulfonyl)-(derivs.)

RN 72310-04-4 CAPLUS  
 CN Acetamide, 2-chloro-N-phenyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

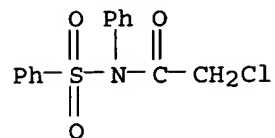


L69 ANSWER 123 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1963:66215 CAPLUS  
 DOCUMENT NUMBER: 58:66215  
 ORIGINAL REFERENCE NO.: 58:11253g-h  
 TITLE: Sulfanilides. V. N-Chloroacetyl derivatives of sulfanilides  
 AUTHOR(S): Malinovskii, M. S.; Solomko, Z. F.; Glushko, L. P.  
 CORPORATE SOURCE: State Univ., Dnepropetrovsk  
 SOURCE: Zhurnal Obshchei Khimii (1962), 32, 3195-7  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 58:66215  
 AB cf. CA 58, 5567c. ClCH<sub>2</sub>COCl added over 1 hr. to RSO<sub>2</sub>NHR' (in the form of Na salt) in C<sub>6</sub>H<sub>6</sub> gave after 1-1.5 hrs. at 40-50° the following RSO<sub>2</sub>NR'COCH<sub>2</sub>Cl (R and R' shown, resp.): Me, Ph, m. 111-12.5°; iso-Pr, Ph, m. 153-4°; Ph, Ph, m. 113-13.5°; p-MeC<sub>6</sub>H<sub>4</sub>, Ph, m. 138-8.5°; o-MeC<sub>6</sub>H<sub>4</sub>, Ph, m. 120-20.5°; p-FC<sub>6</sub>H<sub>4</sub>, Ph, m. 138.5-9.5°; p-ClC<sub>6</sub>H<sub>4</sub>, Ph, m. 137-8°; p-BrC<sub>6</sub>H<sub>4</sub>, Ph, m. 128-8.5°; p-IC<sub>6</sub>H<sub>4</sub>, Ph, m. 151-2°; p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Ph, m. 180-1.5°; m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, Ph, m. 164-5°; Ph, p-MeOC<sub>6</sub>H<sub>4</sub>, m. 172-3°. Heating with 5% NaOH at 50° converted these, within 20 min., to the original sulfonamides.  
 IT 2805-90-5, Acetanilide, 2-chloro-N-[(p-fluorophenyl)sulfonyl]-  
 72310-04-4, Acetanilide, 2-chloro-N-(phenylsulfonyl)-  
 72310-14-6, Acetanilide, 2-chloro-N-[(p-chlorophenyl)sulfonyl]-  
 72310-18-0, Acetanilide, 2-chloro-N-(p-tolylsulfonyl)-  
 72310-22-6, Acetanilide, 2-chloro-N-(methylsulfonyl)-  
 91131-55-4, Acetanilide, 2-chloro-N-(isopropylsulfonyl)-  
 92152-34-6, Acetanilide, N-[(p-bromophenyl)sulfonyl]-2-chloro-  
 93309-14-9, Acetanilide, 2-chloro-N-[(p-iodophenyl)sulfonyl]-  
 93944-78-6, Acetanilide, 2-chloro-N-(o-tolylsulfonyl)-  
 (preparation of)  
 RN 2805-90-5 CAPLUS  
 CN Acetanilide, 2-chloro-N-[(p-fluorophenyl)sulfonyl]- (7CI, 8CI) (CA INDEX NAME)



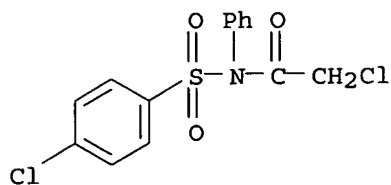
RN 72310-04-4 CAPLUS

CN Acetamide, 2-chloro-N-phenyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



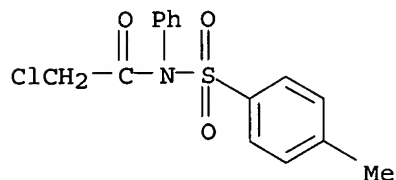
RN 72310-14-6 CAPLUS

CN Acetamide, 2-chloro-N-[(4-chlorophenyl)sulfonyl]-N-phenyl- (9CI) (CA INDEX NAME)



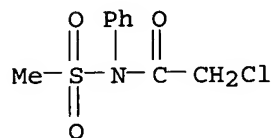
RN 72310-18-0 CAPLUS

CN Acetamide, 2-chloro-N-[(4-methylphenyl)sulfonyl]-N-phenyl- (9CI) (CA INDEX NAME)



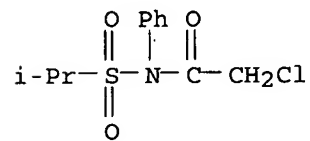
RN 72310-22-6 CAPLUS

CN Acetamide, 2-chloro-N-(methylsulfonyl)-N-phenyl- (9CI) (CA INDEX NAME)



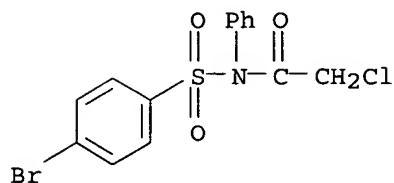
RN 91131-55-4 CAPLUS

CN Acetanilide, 2-chloro-N-(isopropylsulfonyl)- (7CI) (CA INDEX NAME)



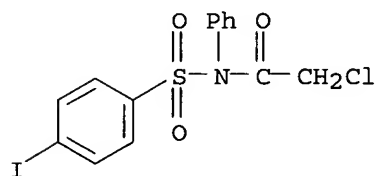
RN 92152-34-6 CAPLUS

CN Acetanilide, N-[(p-bromophenyl)sulfonyl]-2-chloro- (7CI) (CA INDEX NAME)



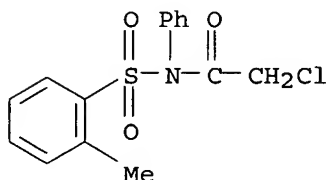
RN 93309-14-9 CAPLUS

CN Acetanilide, 2-chloro-N-[(p-iodophenyl)sulfonyl]- (7CI) (CA INDEX NAME)



RN 93944-78-6 CAPLUS

CN Acetanilide, 2-chloro-N-(o-tolylsulfonyl)- (7CI) (CA INDEX NAME)



L69 ANSWER 124 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1963:66214 CAPLUS

DOCUMENT NUMBER: 58:66214

ORIGINAL REFERENCE NO.: 58:11253e-g

TITLE: Convenient synthetic technique to oxidize mercaptans to disulfides

AUTHOR(S): Wallece, T. J.; Bartok, W.; Schriesheim, A.

CORPORATE SOURCE: Esso Res. &amp; Eng. Co., Linden, NJ

SOURCE: Journal of Chemical Education (1963), 40(No. 1), 39

CODEN: JCEDA8; ISSN: 0021-9584

DOCUMENT TYPE: Journal

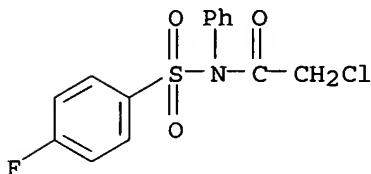
LANGUAGE: Unavailable

AB Disulfides are prepared in good yields by the oxidation of mercaptans with O in the presence of a base. The mercaptan (0.1 mole) is placed in a reaction flask containing a basic solution and a Teflon-covered stirrer, flushed with dry

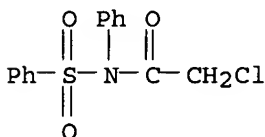
N, attached to an apparatus capable of delivering dry O, the N displaced with O, and the mixture stirred 1.5-23 hrs. The basic reaction medium may be 2M aqueous NaOH or 2M MeOH-MeONa. The O consumption detcs. the extent of reaction. Co phthalocyanine has been used as a catalyst in the reaction

of BuSH and O in aqueous NaOH. The following compds. have been oxidized (compound, solvent, % yield of disulfide, reaction time in hrs. given): BuSH, H<sub>2</sub>O, 79, 11.5; BuSH, H<sub>2</sub>O (and Co phthalocyanine), 61, 1.5; EtMeCHSH, H<sub>2</sub>O, 83, 20.0; PhSH, H<sub>2</sub>O, 67, 23.0; BuSH, MeOH, 85, 7.0; EtMeCHSH, MeOH, 77, 11.0; PhCH<sub>2</sub>SH, MeOH, 84, 2.5.

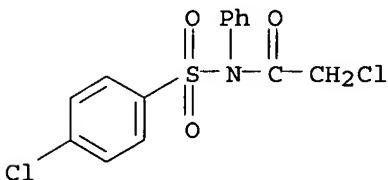
IT 2805-90-5, Acetanilide, 2-chloro-N-[(p-fluorophenyl)sulfonyl]-  
 72310-04-4, Acetanilide, 2-chloro-N-(phenylsulfonyl)-  
 72310-14-6, Acetanilide, 2-chloro-N-[(p-chlorophenyl)sulfonyl]-  
 72310-18-0, Acetanilide, 2-chloro-N-(p-tolylsulfonyl)-  
 72310-22-6, Acetanilide, 2-chloro-N-(methylsulfonyl)-  
 91131-55-4, Acetanilide, 2-chloro-N-(isopropylsulfonyl)-  
 93944-78-6, Acetanilide, 2-chloro-N-(o-tolylsulfonyl)-  
 (preparation of)  
 RN 2805-90-5 CAPLUS  
 CN Acetanilide, 2-chloro-N-[(p-fluorophenyl)sulfonyl]- (7CI, 8CI) (CA INDEX NAME)



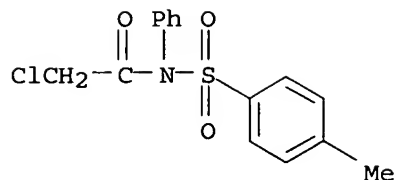
RN 72310-04-4 CAPLUS  
 CN Acetamide, 2-chloro-N-phenyl-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 72310-14-6 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-chlorophenyl)sulfonyl]-N-phenyl- (9CI) (CA INDEX NAME)

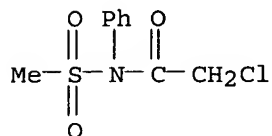


RN 72310-18-0 CAPLUS  
 CN Acetamide, 2-chloro-N-[(4-methylphenyl)sulfonyl]-N-phenyl- (9CI) (CA INDEX NAME)



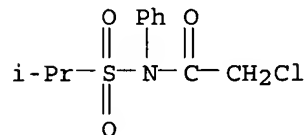
RN 72310-22-6 CAPLUS

CN Acetamide, 2-chloro-N-(methanesulfonyl)-N-phenyl- (9CI) (CA INDEX NAME)



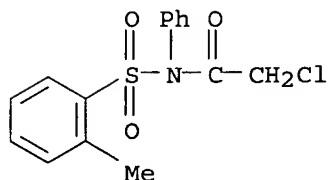
RN 91131-55-4 CAPLUS

CN Acetanilide, 2-chloro-N-(isopropylsulfonyl)- (7CI) (CA INDEX NAME)



RN 93944-78-6 CAPLUS

CN Acetanilide, 2-chloro-N-(o-tolylsulfonyl)- (7CI) (CA INDEX NAME)



L69 ANSWER 125 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1962:41812 CAPLUS

DOCUMENT NUMBER: 56:41812

ORIGINAL REFERENCE NO.: 56:7937i,7938a-b

TITLE: Correlation of chemical structure and taste in the saccharin series

AUTHOR(S): Hamor, Glenn H.

CORPORATE SOURCE: Univ. of S. California, Los Angeles

SOURCE: Science (Washington, DC, United States) (1961), 134, 1416-17

CODEN: SCIEAS; ISSN: 0036-8075

DOCUMENT TYPE: Journal

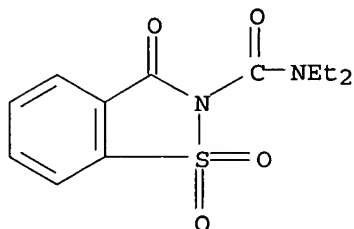
LANGUAGE: Unavailable

AB With approx. 80 saccharin derivs. substitution in the number 2 or 3 position



gave tasteless compds. Replacement of the imide H by another chemical group gave, in almost every case, a tasteless compound Both sweet and bitter substances were made tasteless by substitution in the 2 position. Isomerization of the lactam to the lactim form may be necessary for sweet (and bitter) taste. Substitution in the benzene ring of saccharin with the electron-withdrawing nitro group gives a bitter substance. Substitution with an electron-donating group results in a sweet taste. Doubling the saccharin mol. results in a lack of taste. Many saccharin derivs., including saccharin itself, have a bitter taste or a bitter aftertaste. Resonance may play a part in taste.

IT 5443-42-5, 1,2-Benzisothiazoline-2-carboxamide,  
N,N-diethyl-3-oxo-, 1,1-dioxide  
(taste of)  
RN 5443-42-5 CAPLUS  
CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide  
(9CI) (CA INDEX NAME)



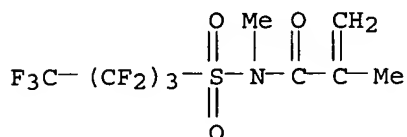
L69 ANSWER 126 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1962:18996 CAPLUS  
DOCUMENT NUMBER: 56:18996  
ORIGINAL REFERENCE NO.: 56:3643h-i  
TITLE: Fluorine-containing acrylamides and their polymers  
INVENTOR(S): Brown, Harvey A.  
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| US 2995542 |      | 19570520 | US              |      |
| GB 888311  |      |          | GB              |      |

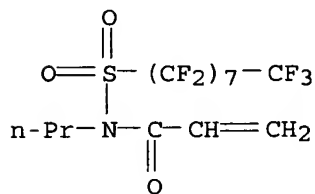
AB The reaction of 62.6 g. C4F9SO2NHMe (from C4F9SO2F and MeNH2) and 20.2 g. CH2:CHCOCl (I) in 150 ml. Et2O and 20.2 g. Et3N gave 55.4 g. C4F9SO2N(Me)COCH:CH2, b0.3 45-59°, n25D 1.3770. imilarly prepared were C4F9SO2N(Me)COC(Me)H: CH2, b0.5 52-62°, C8F17SO3NHCOCH: CH2, m. 100-18°, and C8F17SO2N(Pr)COCH:CH2. Addition of 46 g. Na to 100 g. C8F17NHMe in 250 ml. MeOH, evaporation of the solvent, and addition of 30 ml.

I in 150 ml C6H6 gave 70 g. C8F17SO2N(Me)COCH:CH2 (II), m. 52-4°. Similarly prepared was C8F17SO2N(Et)COCH:CH2 (III), b0.5 80-6°, m. 38--40°. Heating 8 g. II with 0.04 g. Ac2O2 at 60° for 15 min. gave 41% polymer (IV) precipitated from xylene hexafluoride in MeOH. IV was brittle up to 65°, softened at 65-80°, was rubbery above 80°, and decomposed at 160°. It imparts excellent stain resistance to fabrics, as do emulsion polymers of III.

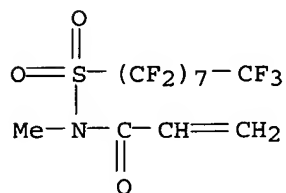
IT 678-52-4, Acrylamide, N,2-dimethyl-N-[(nonafluorobutyl)sulfonyl]-  
 684-38-8, Acrylamide, N-[(heptadecafluorooctyl)sulfonyl]-N-propyl-  
 865-93-0, Acrylamide, N-[(heptadecafluorooctyl)sulfonyl]-N-methyl-  
 1869-69-8, Acrylamide, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-  
 3827-95-0, Acrylamide, N-methyl-N-[(nonafluorobutyl)sulfonyl]-  
 (polymerization of)  
 RN 678-52-4 CAPLUS  
 CN 2-Propenamide, N,2-dimethyl-N-[(nonafluorobutyl)sulfonyl]- (9CI) (CA  
 INDEX NAME)



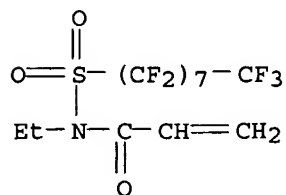
RN 684-38-8 CAPLUS  
 CN 2-Propenamide, N-[(heptadecafluorooctyl)sulfonyl]-N-propyl- (9CI) (CA  
 INDEX NAME)



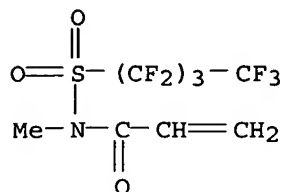
RN 865-93-0 CAPLUS  
 CN Acrylamide, N-[(heptadecafluorooctyl)sulfonyl]-N-methyl- (7CI, 8CI) (CA  
 INDEX NAME)



RN 1869-69-8 CAPLUS  
 CN Acrylamide, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]- (7CI, 8CI) (CA  
 INDEX NAME)



RN 3827-95-0 CAPLUS  
 CN Acrylamide, N-methyl-N-[(nonafluorobutyl)sulfonyl]- (7CI, 8CI) (CA INDEX NAME)



L69 ANSWER 127 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1961:143656 CAPLUS

DOCUMENT NUMBER: 55:143656

ORIGINAL REFERENCE NO.: 55:27107a-i,27108a-f

TITLE: Amino acids and peptides. XXXI. Products formed from tosylglycine under the conditions of a mixed carbonic anhydride synthesis

AUTHOR(S): Zaoral, M.; Rudinger, J.

CORPORATE SOURCE: Ceskoslov. akad. ved, Prague

SOURCE: Collection of Czechoslovak Chemical Communications (1961), 26, 2316-32

CODEN: CCCCAK; ISSN: 0010-0765

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 55:143656

AB cf. ibid. 25, 3338(1960); CA 54, 24420h. [Tosyl or Ts means p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub> throughout this abstract] TsNHCH<sub>2</sub>CONTsCH<sub>2</sub>CO<sub>2</sub>H (I), m. 174-5° (aqueous EtOH) [pyridine salt (II), C<sub>18</sub>H<sub>20</sub>N<sub>2</sub>O<sub>7</sub>S<sub>2</sub>.0.25C<sub>5</sub>H<sub>5</sub>N, m. 136-8° (EtOH); N-ethylpiperidine (III) salt m. about 150° (decomposition) (darkening from 140°); Me ester m. 131-2° (MeOAc-petr. ether); anilide (IV) m. 214-15° (AcOH)], was isolated as the product of several reactions expected to lead to (TsNHCH<sub>2</sub>CO)<sub>2</sub>O (V). The compound of Swan (CA 47, 9274d), was probably also I and not V. I and V could be related by a mobile equilibrium. 3-Tosyloxazolidine-2,5-dione (VI), m. 190° (dioxane) (decomposition) (sintering and darkening from 170°), could serve as an intermediate in the peptide synthesis. Treating at -3° 2.43 g. TsNMeCH<sub>2</sub>CO<sub>2</sub>H (VII) and 1.4 ml. III in 20 ml. CHCl<sub>3</sub> with 1.4 ml. sec-BuOCOCl in 3 ml. CHCl<sub>3</sub>, keeping the mixture 5 min. at 0°, adding 0.9 ml. PhNH<sub>2</sub>, keeping the mixture 30 min. at room temperature, evaporating in vacuo, treating the residue with 25 ml. H<sub>2</sub>O and 50

ml.

EtOAc, and working up gave 2.55 g. VII anilide, m. 156-7° (aqueous EtOH). Similarly, 2.29 g. TsNHCO<sub>2</sub>H (VIII) gave 0.05 g. VIII anilide (IX), m. 164-5° (aqueous EtOH), 1.74 g. sec-BuOCONHPh (X), m. 64-5° (petr. ether), and 1.74 g. recovered VIII. Treating at -2° 2.29 g. VIII and 1.4 ml. III in 10 ml. CHCl<sub>3</sub> with 1.4 ml. sec-BuOCOCl, keeping the mixture 5 min. at 0°, diluting with 150 ml. chilled (-5°) petr. ether with agitation, and after 5 min. at 0° treating sop. both layers (dissolved in CHCl<sub>3</sub>) with PhNH<sub>2</sub> gave 1.8 g. X and 1.38 g. recovered VIII, resp. If C<sub>5</sub>H<sub>5</sub>N was used instead of III in the above experiment, the petr. ether layer gave 5% X, whereas the oily layer (dissolved in CHCl<sub>3</sub>) yielded 26% I, 8% IV, 20% IX, 15.5% X, and 4% 1,4-ditosylpiperazine-2,5-dione (XI), m. 295-60° (aqueous C<sub>5</sub>H<sub>5</sub>N) (Kofler block). Treating the mixed anhydride (from 11.45 g. VIII, 6.9 ml. sec-BuOCOCl, 4.9 ml. C<sub>5</sub>H<sub>5</sub>N,

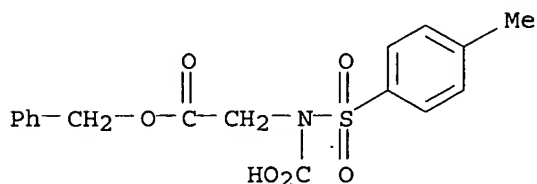
and 50 ml.  $\text{CHCl}_3$  at  $-3^\circ$  as usual) with 4.6 ml.  $\text{PhNH}_2$  and working up gave 4% recovered VIII, 1% VIII  $\text{PhNH}_2$  salt, 16% IX, 15% I, 22% IV, 0.1% sec-BuOCONTs $\text{CH}_2\text{CO}_2\text{H}$  (XII), m.  $104-5^\circ$  ( $\text{CCl}_4$ -petr. ether), 0.1% XII anilide, m.  $137-9^\circ$  (EtOAc-petr. ether), 19% XI, 10% (based on  $\text{PhNH}_2$  added) X, and 25%  $\text{PhNH}_3\text{Cl}$ . Treating at  $-5$  to  $0^\circ$  2.29 g. VIII, 15 ml.  $\text{CHCl}_3$ , and 0.95 ml.  $\text{C}_5\text{H}_5\text{N}$  with  $\text{TsNHCHH}_2\text{COCl}$  (XIII), keeping the mixture at room temperature overnight, evaporating in vacuo, and triturating the gummy residue with 20 ml. 2% aqueous  $\text{NaHCO}_3$  gave II, obtained also by treating 0.44 g. I in 3 ml. iso- $\text{PrOH}$  with 0.09 ml.  $\text{C}_5\text{H}_5\text{N}$ . Treating 4 g. crude II in  $\text{H}_2\text{O}$  and EtOAc with 1 ml. concentrated aqueous  $\text{HCl}$ , filtering, washing the EtOAc layer with dilute aqueous  $\text{HCl}$ , extracting with 5% aqueous  $\text{NaHCO}_3$  in 3 portions, and acidifying the filtered extract gave 2.83 g. I, m.  $174-5^\circ$  (aqueous EtOH). Stirring vigorously 2 g. XIII, 2.7 g.  $\text{TsNHCH}_2\text{CO}_2\text{Ag}$ , and 25 ml.  $\text{CHCl}_3$  3 hrs. at room temperature, filtering, evaporating the filtrate in vacuo, dissolving the residue in 1 ml.  $\text{Me}_2\text{CO}$ , and precipitating with 20 ml.  $\text{C}_6\text{H}_6$  gave after 12 hrs. at  $0^\circ$  0.4 g. I, m.  $163-4^\circ$  (aqueous EtOH), unchanged on further crystallization. The infrared spectra of I, m.  $163-4^\circ$ , and I, m.  $174-5^\circ$ , were identical. Treating portionwise at  $-5$  to  $0^\circ$  27.5 g.  $\text{TsNHCH}_2\text{CO}_2\text{CH}_2\text{Ph}$  (XIV), 23.8 ml. III, and 50 ml.  $\text{CHCl}_3$  with 23.8 ml. sec-BuOCOCl in 23.8 ml.  $\text{CHCl}_3$ , keeping the mixture several hours at room temperature, evaporating, dissolving the residue in  $\text{H}_2\text{O}$  and EtOAc, washing the EtOAc layer with 10% aqueous  $\text{HCl}$  and 5% aqueous  $\text{NaHCO}_3$ , drying ( $\text{Na}_2\text{SO}_4$ ), and evaporating gave 23.7 g. XII  $\text{PhCH}_2$  ester (XV), m.  $55-6^\circ$  (sintering from  $50^\circ$ ). Hydrogenating 4.19 g. XV in 10 ml.  $\text{AcOH}$  over 0.4 g. prerduced  $\text{PtO}_2$  at room temperature atmospheric, evaporating the filtrate, dissolving the residue in 100 ml. 5% aqueous  $\text{NaHCO}_3$ , washing the solution with  $\text{Et}_2\text{O}$ , acidifying, extracting with  $\text{Et}_2\text{O}$ , and evaporating the dried extract gave 2.4 g. XII. Treating at  $0^\circ$  2.29 g. VIII, 1.84 ml. III, and 20 ml.  $\text{CHCl}_3$  with 0.72 ml.  $\text{AcCl}$  and after 10 min. 0.94 ml.  $\text{PhNH}_2$ , keeping the mixture at room temperature 30 min., evaporating in vacuo, treating the residue with  $\text{H}_2\text{O}$  and EtOAc, extracting the EtOAc layer with 5% aqueous  $\text{NaHCO}_3$ , and acidifying the extract gave 0.9 g. VIII N-Ac derivative (XVI), m.  $152-3^\circ$  [XVI Me ester (prepared with  $\text{CH}_2\text{N}_2$ ) m.  $86-7^\circ$  (aqueous  $\text{MeOH}$  or  $\text{C}_6\text{H}_6$ -petr. ether)]. Treating at  $-5$  to  $0^\circ$  27.5 g. XIV, 23.8 ml. III, and 100 ml.  $\text{CHCl}_3$  with 13.5 g.  $\text{AcCl}$  in 30 ml.  $\text{CHCl}_3$ , keeping the mixture 1 hr. at room temperature, evaporating in vacuo, and working up the residue as in the case of XV gave 18.8 g. XVI  $\text{PhCH}_2$  ester (XVII), m.  $67-7.5^\circ$  (aqueous EtOH). Hydrogenating 3.6 g. XVII in 10 ml.  $\text{AcOH}$  over 0.5 g.  $\text{PtO}_2$  at room temperature (1 atmospheric), evaporating the filtered solution in vacuo, and triturating the residue with petr. ether gave 2.6 g. XVI. The attempted solvolysis of 7.2 g. XVII with 50 ml. 35%  $\text{HBr}$  in  $\text{AcOH}$  at room temperature (20 min.) gave 3.45 g. VIII. Treating at  $-5$  to  $0^\circ$  3.3 g. I, 0.61 ml.  $\text{C}_5\text{H}_5\text{N}$ . and 30 ml.  $\text{CHCl}_3$  with 1.04 ml. sec-BuOCOCl, after 5 min. diluting the chilled ( $-10^\circ$ ) mixture with chilled ( $0^\circ$ ) petr. ether till no more precipitation took place, after 5 min. decanting the upper layer, treating the residue with 30 ml. cooled ( $0^\circ$ )  $\text{CHCl}_3$  and 1 ml.  $\text{PhNH}_2$  (evoln. of  $\text{CO}_2$ ), after 30 min. collecting the precipitate, washing with  $\text{CHCl}_3$ , drying, and crystallizing gave 3 g. IV. If the above reaction was carried out in the conventional manner, 65% XI was obtained along with 0.18 g. X, 0.08 g. IX,

and 0.3 g. recovered I. Treating I, IV, XI, XII, and XVI, resp., with PhNH<sub>2</sub>, keeping the mixture 30 min. at 100°, cooling, diluting with excess 10% aqueous HCl, collecting the precipitate, and washing with 5% aqueous NaHCO<sub>3</sub> gave IX. Keeping 0.44 g. I with 5 ml. 25% aqueous NH<sub>3</sub> at room temperature overnight, acidifying, collecting the precipitate, triturating repeatedly with 5% aqueous NaHCO<sub>3</sub>, and washing with H<sub>2</sub>O gave 0.23 g. TsNHCH<sub>2</sub>CONH<sub>2</sub>, m. 163-4°. Refluxing 0.11 g. I, 1 ml. CHCl<sub>3</sub>, and 0.02 ml. C<sub>5</sub>H<sub>5</sub>N 30 min., evaporating, and washing the residue with 1 ml. 10% aqueous HCl and 1 ml. boiling EtOH gave 0.02 g. XI, prepared also (yield 47%) by heating 0.11 g. I with 1 ml. C<sub>5</sub>H<sub>5</sub>N 30 min. at 100° and working up as above. Introducing with agitation at 50-60° COCl<sub>2</sub> into 5.5 g. finely ground VIII di-Na salt (from VIII in MeOH and 2N MeONa in MeOH) in 60 ml. dioxane 30 min., filtering the hot mixture, evaporating the filtrate, and triturating the residue with 20 ml. C<sub>6</sub>H<sub>6</sub> gave 56% VI, whereas refluxing 1.65 g. XII with 5 ml. SOCl<sub>2</sub> 20 min., evaporating in vacuo, heating the residual oil at 130-50°/15 mm. till frothing ceased and crystals separated, triturating the cooled residue with 10 ml. C<sub>6</sub>H<sub>6</sub>, and collecting gave only 32% VI. Adding 0.18 ml. PhNH<sub>2</sub> in 0.5 ml. dioxane to 0.51 g. VI in 2 ml. dioxane, keeping the mixture 5 min. at room temperature (evoln. of CO<sub>2</sub>) and 5 min. at 50°, diluting with 8 ml. H<sub>2</sub>O. and acidifying gave 100% IX. Treating 0.51 g. VI in 3 ml. dioxane with 0.21 g. H<sub>2</sub>NCH<sub>2</sub>CO<sub>2</sub>Et in 1 ml. dioxane, keeping the mixture 5 min. at room temperature (evolution of CO<sub>2</sub>), evaporating in vacuo, and washing the residue with aqueous NaHCO<sub>3</sub> gave 0.52 g. TsNHCH<sub>2</sub>CONHCH<sub>2</sub>CO<sub>2</sub>Et, m. 89-90° (C<sub>6</sub>H<sub>6</sub>-petr. ether). Similarly, L-leucine Me ester gave 87% tosylglycyl-L-leucine Me ester, m. 79-80° (EtOAc-petr. ether). Carbonyl stretching frequencies of some derivs. of I and VIII were given and discussed.

IT 856944-58-6, Glycine, N-carboxy-N-p-tolylsulfonyl-, benzyl ester (preparation of)

RN 856944-58-6 CAPLUS

CN Glycine, N-carboxy-N-p-tolylsulfonyl-, benzyl ester (6CI) (CA INDEX NAME)



L69 ANSWER 128 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1961:137433 CAPLUS

DOCUMENT NUMBER: 55:137433

ORIGINAL REFERENCE NO.: 55:25918g-h

TITLE: Saccharin derivatives. IV. Synthesis of 2-(diethylcarbamoyl)- and 2-(diethylthiocarbamoyl)saccharin, and related compounds

AUTHOR(S): Mehta, Satyendra J.; Hamor, Glenn H.

CORPORATE SOURCE: Univ. of S. California, Los Angeles

SOURCE: Journal of Pharmaceutical Sciences (1961), 50, 672-5

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

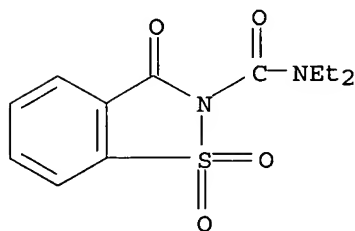
OTHER SOURCE(S): CASREACT 55:137433

AB cf. CA 54, 15362a. The following compds. were prepared by refluxing the appropriate compound with  $\text{CHCl}_3$  and  $\text{Et}_2\text{NCOC}_1$  and recrystg. the product from  $\text{EtOH}$  (m.p. and % yield given): saccharin derivs.: 2-(diethylcarbamoyl),  $117-18^\circ$ , 40; 2-(diethylthiocarbamoyl),  $206-7^\circ$ , 34; 2-(diethylcarbamoyl)-6-nitro,  $172-3^\circ$ , 73; and 2-(carbethoxy),  $136^\circ$ , 65; 1,2-benzisothiazole 1,1-dioxide derivs.: 3-diethylamino,  $206-7^\circ$ , 46.9; 3-diethylamino-6-nitro,  $256-7^\circ$  ( $\text{Me}_2\text{CO}$ ), 67; and 3-(dimethylamino),  $273-4^\circ$ , 9.

IT **5443-42-5**, 1,2-Benzisothiazoline-2-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide **108676-51-3**, 1,2-Benzisothiazoline-2-carboxamide, N,N-diethyl-6-nitro-3-oxo-, 1,1-dioxide (preparation of)

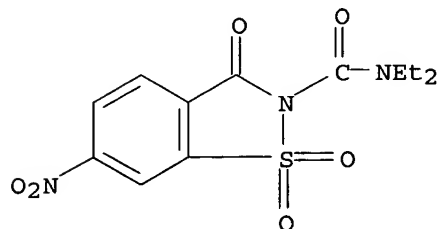
RN 5443-42-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 108676-51-3 CAPLUS

CN 2-Benzisothiazoline-2-carboxamide, N,N-diethyl-6-nitro-3-oxo-, 1,1-dioxide (6CI) (CA INDEX NAME)



L69 ANSWER 129 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1961:27961 CAPLUS

DOCUMENT NUMBER: 55:27961

ORIGINAL REFERENCE NO.: 55:5532b-f

TITLE: Sulfamoyl derivatives of certain saccharins

INVENTOR(S): Novello, Frederick C.

PATENT ASSIGNEE(S): Merck &amp; Co., Inc.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE  | APPLICATION NO. | DATE  |
|------------|------|-------|-----------------|-------|
| -----      | ---- | ----- | -----           | ----- |

US 2957883  
DE 1165033  
FR 1326309  
GB 887711

19601025

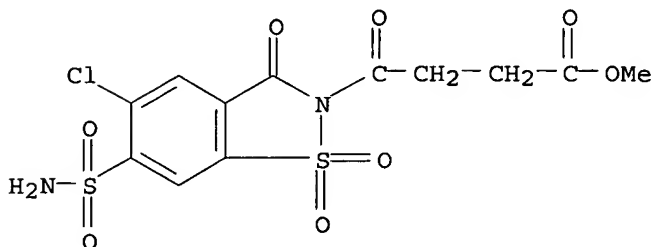
US  
DE  
FR  
GB

AB A series of the title compds., useful as diuretics, was prepared via conventional reactions. Thus, 31.8 g. m-chlorotoluene was added dropwise to 165 ml. chlorosulfonic acid at 0°, the reaction mixture heated 3 hrs. at 150-60° and cooled, and the product precipitated over ice and added portion-wise to 150 ml. 28% NH<sub>4</sub>OH at 0°. This mixture was heated 2 hrs. at 100° and cooled and the 5-chloro-2,4-disulfamoyl-toluene, m. 256-7° (from aqueous EtOH), collected. Oxidation of this product with alkaline KMnO<sub>4</sub> at 100° gave 5-chloro-2,4-disulfamoylbenzoic acid, decomposing 200° (from H<sub>2</sub>O), which was cyclodehydrated in H<sub>2</sub>SO<sub>4</sub> at 25° to give 5-chloro-6-sulfamoylsaccharin (I), decomposing 273-5° (from 50% aqueous EtOH); di-Na salt of I was prepared from NaOEt in EtOH. Similar 5-substituted-6-sulfamoylsaccharins prepared from suitable m-substituted toluenes were (5-substituent given): fluoro, bromo, methyl, butyl, ethoxy, butoxy, and nitro compds. Reduction of the 5-nitro compound gave 5-amino-6-sulfamoylsaccharin. The isomeric 6-chloro-5-sulfamoylsaccharin was prepared from p-chlorotoluene via 4-chlorotoluene-2,5-disulfonyl chloride, 4-chloro-2,5-disulfamoyltoluene, and 4-chloro-2,5-disulfamoylbenzoic acid. Condensation of I with various compds. in the presence of KOEt in HCONMe<sub>2</sub> gave derivs. of I. Substitution took place on the N atom (numbered 2) in the ring system (reactants and 2-substituents of 2-substituted-5-chloro-6-sulfamoylsaccharins given): (CH<sub>2</sub>Br)<sub>2</sub>, 2-bromoethyl (II); Br(CH<sub>2</sub>)<sub>3</sub>Br, 3-bromopropyl; n-C<sub>3</sub>H<sub>7</sub>Br, n-C<sub>3</sub>H<sub>7</sub>; CH<sub>2</sub>:CHCH<sub>2</sub>Br, allyl; PhCH<sub>2</sub>Br, PhCH<sub>2</sub>; PhCH<sub>2</sub>CH<sub>2</sub>Br, PhCH<sub>2</sub>CH<sub>2</sub>; n-C<sub>4</sub>H<sub>9</sub>Br, n-C<sub>4</sub>H<sub>9</sub>; phenylacetyl bromide, phenylacetyl; methyl succinoyl chloride, 3-carbomethoxypropionyl; and Et bromoacetate, 2-carbethoxymethyl (III). Alkaline hydrolysis of III gave 2-carboxymethyl-5-chloro-6-sulfamoylsaccharin. Reactions of II with alc. solns. of aqueous NaOH, NH<sub>3</sub>, n-C<sub>3</sub>H<sub>7</sub>NH<sub>2</sub>, and piperidine gave 2-(2-hydroxyethyl)-, 2-(2-aminoethyl), 2-(2-propylaminoethyl)-, and 2-(2-piperidinoethyl)-5-chloro-6-sulfamoylsaccharin, resp. Directions were given for the preparation of tablets.

IT 104095-24-1, 1,2-Benzisothiazoline-2-butyric acid, 5-chloro-γ,3-dioxo-6-sulfamoyl-, methyl ester, 1,1-dioxide (preparation of)

RN 104095-24-1 CAPLUS

CN 1,2-Benzisothiazoline-2-butyric acid, 5-chloro-γ,3-dioxo-6-sulfamoyl-, methyl ester, 1,1-dioxide (6CI) (CA INDEX NAME)



L69 ANSWER 130 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1960:97262 CAPLUS  
DOCUMENT NUMBER: 54:97262  
ORIGINAL REFERENCE NO.: 54:18378c-i,18379a-g

TITLE: N-( $\alpha$ -Aminoacyl)sulfonamides  
 AUTHOR(S): Wieland, Theodor; Hennig, Hans Joachim  
 CORPORATE SOURCE: Univ. Frankfurt, Germany  
 SOURCE: Chemische Berichte (1960), 93, 1236-46  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 54:97262

AB  $\alpha$ -Azidoalkanoyl chlorides (I) with p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> (II) or p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> (III) and N<sub>3</sub>CH<sub>2</sub>COCl (IV) with MeSO<sub>2</sub>NH<sub>2</sub> (V) yielded the corresponding, strongly acidic N-azidoacylsulfonamides (VI). The VI reduced with HBr in glacial AcOH gave the corresponding N-( $\alpha$ -aminoacyl)sulfonamides (VII); p-NO<sub>2</sub>-substituted VI hydrogenated over Pd black gave the corresponding p-aminobenzenesulfonimides of the amino acids. The VII were typical zwitterions and gave a number of reactions typical of amino acids. The appropriate  $\alpha$ -halo acid (0.667 mole) dissolved with cooling in 200 cc. 3.3N NaOH, treated with 50 g. NaN<sub>3</sub>, layered with 20 cc. Et<sub>2</sub>O, refluxed 48-60 hrs., acidified with 350 cc. iced 2N H<sub>2</sub>SO<sub>4</sub>, and extracted with 3 l. Et<sub>2</sub>O (in portions), the extract dried and evaporated, the residual liquid treated dropwise with 100 cc. SOCl<sub>2</sub> (in portions), and the mixture refluxed 1 hr., filtered, and fractionated yielded the corresponding I; in this manner were prepared IV, b12 41°, 77%; MeCHN<sub>3</sub>COCl, b15, 44°, 85%; and Me<sub>2</sub>CHCHN<sub>3</sub>COCl, b13 61°, 70%. The appropriate sulfonamide (0.1 mole) and 0.12-0.15 mole I in 75 cc. xylene treated at 130-5° with a stream of N during 8 hrs., cooled, and filtered, and the residue recrystd. with C gave the corresponding VI; method A. The appropriate sulfonamide (0.2 mole) in 100 cc. 2N NaOH treated dropwise with stirring during 2 hrs. with 0.1 mole I, stirred 3 hrs., the mixture filtered, the residue treated with a small amount of aqueous NaHCO<sub>3</sub>, the alkaline extract acidified and extracted with 100 cc. EtOAc, the extract reextd. with 7% aqueous NaHCO<sub>3</sub>, and the aqueous alkaline extract acidified with HCl gave crystalline VI; method B. In this manner were prepared the following N<sub>3</sub>CHRCONHSO<sub>2</sub>R' (R, R', method, m.p., and % yield given): H, p-MeC<sub>6</sub>H<sub>4</sub> (VIII), A, 105-6° (Et<sub>2</sub>O-petr. ether), 82; Me, p-MeC<sub>6</sub>H<sub>4</sub>, A, 104° (Et<sub>2</sub>O-petr. ether), 42; iso-Pr, p-MeC<sub>6</sub>H<sub>4</sub>, B, 91-2° (EtOAc-petr. ether), 46; H, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, B, 144-5° (EtOAc-petr. ether), 74; Me, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, B, 125° (EtOAc-petr. ether), 59; iso-Pr, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, B, 109° (EtOAc-petr. ether), 29. For the N-Me derivative (IX) of VIII, A, 82° (aqueous EtOH) (from VIII and CH<sub>2</sub>N<sub>2</sub>). IV condensed in the usual manner with V, 9.2 g. crude product in 150 cc. buffer (50 cc. C<sub>5</sub>H<sub>5</sub>N and 5 cc. glacial AcOH in 10 l. H<sub>2</sub>O) subjected to continuous electrophoresis during 5 days, the combined acidic fractions evaporated in vacuo, the residue dissolved in a few cc. EtOAc, and the solution filtered and diluted with petr. ether gave N<sub>3</sub>CH<sub>2</sub>CONHSO<sub>2</sub>Me, m. 98°. By method A were prepared in the usual manner p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NHOCCH<sub>2</sub>Cl (X), m. 98-9° (Et<sub>2</sub>O-petr. ether), in 52% yield; N<sub>3</sub>CH<sub>2</sub>CONHBz (XI), 38%, m. 137° (Et<sub>2</sub>O-petr. ether); and N-(N-phthaloylglycyl)tosylamide, 89%, m. 295-6° (decomposition) (glacial AcOH) (from N-phthaloylglycyl chloride and II). The appropriate VI (0.02 mole) in 50-200 cc. glacial AcOH hydrogenated 5-6 hrs. over 1-2 g. Pd black, the mixture filtered, the filtrate evaporated in vacuo, the residue dissolved in a little H<sub>2</sub>O, reevapd. in vacuo, a paste made with H<sub>2</sub>O, and the crystalline product recrystd. from H<sub>2</sub>O and dried in vacuo over solid KOH gave the corresponding VII; method C. Dry VI (0.01 mole) in 2 cc. dry Me<sub>2</sub>CO treated with cooling with 7 cc. 40% HBrAcOH, kept 1-2 hrs. at room temperature, and centrifuged, the crystalline precipitate washed with Et<sub>2</sub>O, the resulting VII.HBr (above 80% from glycine derivs.



and about 50% from alanine derivs.) dissolved in the min. amount of H<sub>2</sub>O, adjusted dropwise with 2N NaOH to pH 6.5, and filtered, and the residue recrystd. from H<sub>2</sub>O gave 60-70% VII; method D. In this manner were prepared the following compds. [method, % yield, m.p. (with decomposition), and R<sub>f</sub> value in 75:15:10 EtMeCHOH-HCO<sub>2</sub>H-H<sub>2</sub>O given]: N-glycyltosylamide (XII).H<sub>2</sub>O, D, -, 233°, 0.41; N-glycylmesylamide, C, 57, 176° (aqueous EtOH), 0.09; N-glycyl-p-nitrobenzenesulfonamide, D, -, 226°, 0.27; N-glycyl-p-aminobenzenesulfonamide, C, 95, 235°, 0.16; N-(DL-alanyl)tosylamide (XIII), D, -, 230°, 0.47; N-(DL-alanyl)-p-nitrobenzenesulfonamide, D, -, 343°, 0.40; N-(DL-alanyl)-p-aminobenzenesulfonamide-H<sub>2</sub>O, C, 76, 234°, 0.22; N-(DL-valyl)tosylamide, C, 90, 243-5°, 0.55; N-(DL-valyl)-p-aminobenzenesulfonamide, C, 62, 238-40°, 0.33. XI with HBr-AcOH gave H<sub>2</sub>NCH<sub>2</sub>CONHBz.2HBr which in H<sub>2</sub>O turned dark red on prolonged standing. XII and Na<sub>2</sub>CO<sub>3</sub> in aqueous MeOH treated with 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>F and acidified with concentrated HCl gave the 2,4-dinitrophenyl derivative of XII, yellow, m. 225-7° (EtOAc-petr. ether). Similarly was prepared the 2,4-dinitrophenyl derivative of XIII, yellow, m. 186° (EtOAc-petr. ether). PhCH<sub>2</sub>O<sub>2</sub>CNHCH<sub>2</sub>CO<sub>2</sub>H (0.02 mole) treated in tetrahydrofuran with ClCO<sub>2</sub>Et, the resulting anhydride shaken with 3.4 g. II in 10 cc. 2N NaOH, tetrahydrofuran evaporated, the residual mixture filtered, the filtrate

adjusted

with HCl to pH (about) 2, the precipitate dissolved in aqueous NaHCO<sub>3</sub>, and the solution

adjusted with dilute HCl to pH 6 gave 40% PhCH<sub>2</sub>O<sub>2</sub>C derivative (XIV) of XII, m. 155-6° (H<sub>2</sub>O). PhCH<sub>2</sub>O<sub>2</sub>CNHCH<sub>2</sub>COSPh (3 g.) in 30 cc. tetrahydrofuran mixed with 1.7 g. II in 5 cc. 2N NaOH, diluted with H<sub>2</sub>O, heated 4 hrs. at 60°, and worked up in the usual manner gave 2 g. XIV. XII (2.46 g.) in 5 cc. 2N NaOH treated with stirring and cooling with 1.7 g. PhCH<sub>2</sub>O<sub>2</sub>CCl and 5 cc. 2N NaOH, the mixture washed with Et<sub>2</sub>O, acidified with HCl, and filtered after 1 hr. gave 1.55 g. XIV, m. 155-6°. XIII gave similarly the PhCH<sub>2</sub>O<sub>2</sub>C derivative, m. 115-16°.

Carbobenzyloxy-DL-alanine and XII gave (by the anhydride method) 82% N-(carbobenzyloxy-alanylglycyl)tosylamide, m. 204° (decomposition) (aqueous EtOH), which (cleaved with HBr-AcOH) gave 78% N-(DL-alanylglycyl)tosylamide-HBr (XV.HBr), m. 190-5° (decomposition), which (neutralized in concentrated aqueous solution) yielded 41% XV, m. 130-2° (decomposition) (H<sub>2</sub>O). AcCO<sub>2</sub>H and XII (condensed by the POCl<sub>3</sub> method) gave 11% AcCO derivative (XVI) of XII, m. 207°. IX gave similarly 30% N-Me derivative of XVI, m. 98-9°. X (4.95 g.) in 50 cc. 40% aqueous Me<sub>3</sub>N kept 1 week and filtered yielded N,N,N-trimethylglycyl-p-toluenesulfonamide betaine, m. 295-90° (decomposition) (H<sub>2</sub>O). XII (0.69 g.) in 6 cc. N NaOH treated with 0.62 cc. BzH and 3 cc. EtOH, kept 2 weeks at room

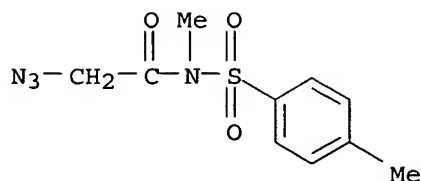
temperature,

the mixture filtered, the residue dissolved in a little warm H<sub>2</sub>O, the solution acidified with HCl, washed with Et<sub>2</sub>O, and evaporated in vacuo, and the residue recrystd. (from H<sub>2</sub>O with C) gave 30% N-(DL-3-phenylseryl)tosylamide, decomposing above 200°. The infrared absorption spectra of XIII and XIII.HCl were recorded.

IT 99069-72-4, Acetamide, 2-azido-N-methyl-N-p-tolylsulfonyl-  
(preparation of)

RN 99069-72-4 CAPLUS

CN Acetamide, 2-azido-N-methyl-N-p-tolylsulfonyl- (6CI) (CA INDEX NAME)



L69 ANSWER 131 OF 131 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1948:4167 CAPLUS

DOCUMENT NUMBER: 42:4167

ORIGINAL REFERENCE NO.: 42:907h-i,908a-i,909a

TITLE: Reactions of 2-(phenylsulfonyl)benzothiazolone with aromatic amines

AUTHOR(S): McClelland, Ernest W.; Peters, Raymond H.

CORPORATE SOURCE: King's Coll., Strand, UK

SOURCE: Journal of the Chemical Society, Abstracts (1947) 1229-34

CODEN: JCSAAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. C.A. 33, 6306.6. 2-(Phenylsulfonyl)-1,2-benzisothiazolone (I) (5 g.) and 5 g. PhNMe<sub>2</sub> in 20 ml. EtOH, refluxed 3 hrs., give 4-dimethylamino-2'-(phenylsulfonylcarbonyl)diphenyl sulfide (II), PhSO<sub>2</sub>NHCOC<sub>6</sub>H<sub>4</sub>SC<sub>6</sub>H<sub>4</sub>NMe<sub>2</sub>, yellow, m. 172°; the Na salt (m. 308°, slightly soluble in H<sub>2</sub>O) with Me<sub>2</sub>SO, yields a Me derivative, C<sub>22</sub>H<sub>22</sub>O<sub>3</sub>N<sub>2</sub>S<sub>2</sub>, m. 144° (hydrolysis yields PhSO<sub>2</sub>NHMe, m. 31°). Hydrolysis of II by boiling 2 hrs. with concentrated HCl gives 4-dimethylamino-2'-carboxydiphenyl sulfide (III), pale green, m. 250-60° (decomposition). (4-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>S<sub>2</sub>, reduced with 3 g. Sn and 30 cc. concentrated HCl, made alkaline with 100 cc. 35% aqueous NaOH, heated

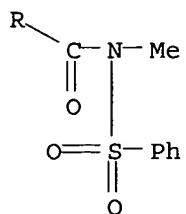
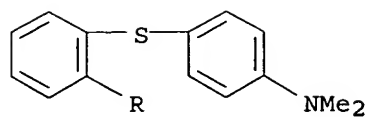
while a stream of N is passed through the solution, a diazotized solution of 8.8

g. o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H added, and heated an addnl. 5 min., gives III, which seps. with 1 mol. EtOH; each sample of III yields an Et ester, C<sub>17</sub>H<sub>19</sub>O<sub>2</sub>NS, m. 143°. I and PhNMeEt yield the 4-(methylethylamino) analog of II, pale yellow, m. 141°; hydrolysis gives the 4-(methylethylamino) analog of III, greenish, m. about 230° (decomposition); it was also synthesized from (4-MeEtNC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>S<sub>2</sub>. 4-(Benzylmethylamino) analog of II, pale green, with 1 mol. EtOH, m. 123°; 4-(benzylmethylamino) analog of III, pale green, m. 194°. 4-Methylamino analog of II, m. 142°, turns green in the air. NO derivative, golden, m. 170°; hydrolysis with 60% H<sub>2</sub>SO<sub>4</sub> gives 4-methylamino-2'-carboxydiphenyl sulfide, buff, m. 224°; Ac derivative m. 184°. 4-Ethylamino analog of II, cream, m. 150°; NO derivative, red, m. 138°, turns yellow on heating; hydrolysis with 60% H<sub>2</sub>SO<sub>4</sub> gives 4-ethylamino-2'-carboxydiphenyl sulfide, buff, m. 224°; Ac derivative m. 184°. I and PhNH<sub>2</sub> give the 4-NH<sub>2</sub> analog of II, m. 167° (incorrectly formulated in C.A. 33, 6306.6); perchlorate, m. 221° (decomposition), seps. with 1 mol. H<sub>2</sub>O; the diazo solution yields an azo-2-naphthol, red, m. 148°; hydrolysis with 60% gives 4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-2. I and o-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> give 4-amino-2'-(phenylsulfonylcarbonyl)-3-methyldiphenyl sulfide, m. 118°; perchlorate, cream, m. 225° (decomposition); the corresponding azo-2-naphthol, dark red, m. 136°. II (5 g.) and 20 cc. concentrated H<sub>2</sub>SO<sub>4</sub>, warmed 1 hr. at 50°, give 2-dimethylaminothiaxanthone, orange, m. 122°; the H<sub>2</sub>SO<sub>4</sub> solution has a green fluorescence; it results also from III and concentrated H<sub>2</sub>SO<sub>4</sub>. A 2nd

product is presumably 4-dimethylamino-3-sulfo-2'-carboxydiphenyl sulfide, m. 318°; heated 0.5 hr. at 150° with 10 parts concentrated H<sub>2</sub>SO<sub>4</sub>, it yields 2-dimethylamino-3-thiaxanthonesulfonic acid, with 1 mol. H<sub>2</sub>O, not melted at 310°; the Na salt m. 310°; the K salt, with 2 mols. H<sub>2</sub>O, m. 95° (anhydrous, m. 230°). 2-(Methylethylamino)thiaxanthone, pale orange, m. 120°; 4-(methylethylamino)-3-sulfo-2'-carboxydiphenyl sulfide m. 314° (decomposition); Na salt m. 272° K salt m. 215°. 2-(Benzylmethylamino)thiaxanthone, yellow, m. 149.5°; 4-(benzylmethylamino)-3-sulfo-2'-carboxydiphenyl sulfide m. 286° (decomposition). 2-Methylaminothiaxanthone, yellow, m. 158°, or red, becoming yellow at about 144°; 4-methylamino-3-sulfo-2'-carboxydiphenyl sulfide m. 321° (decomposition). 2-Ethylaminothiaxanthone, orange, m. 134°; no sulfonic acid could be isolated. 2-Aminothiaxanthone yields a di-Ac derivative, yellow, m. 245°. 4-Amino-3-sulfo-2'-carboxydiphenyl sulfide m. above 320°. I and p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> in EtOH, refluxed 5 hrs., give the lactam of 2-amino-2'-carboxy-5-methyldiphenyl sulfide (IV), C<sub>14</sub>H<sub>11</sub>ONS, m. 274°; H<sub>2</sub>O<sub>2</sub> in AcOH gives the sulfone, C<sub>14</sub>H<sub>11</sub>O<sub>3</sub>NS, m. above 320°. Hydrolysis (4 hrs.) with 65% H<sub>2</sub>SO<sub>4</sub> gives 4-amino-1-methylthiaxanthone and 2-amino-2'-carboxy-5-methyldiphenyl sulfide, C<sub>14</sub>H<sub>13</sub>O<sub>2</sub>NS, pale buff, m. 170°. I and p-MeOC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> give the 5-MeO analog of IV, m. 235° (Ac derivative, m. 165°); sulfone m. 246° (Ac derivative, m. 194°); the same lactam results from 2-(p-tolylsulfonyl)-1,2-benzisothiazolone; hydrolysis by acid gives 2-amino-2'-carboxy-5-methoxydiphenyl sulfide, buff, m. 168° (perchlorate, m. 210° (decomposition)); a by-product of the hydrolysis appears to be 4-amino-1-hydroxythiaxanthone, red, m. 238°; Me ether, yellow, m. 168°. I and p-ClC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> give the lactam of 5-chloro-2-amino-2'-carboxydiphenyl sulfide, m. 321°; the acid m. 183°. Lactam of 2-amino-2'-carboxydiphenyl sulfide, m. 256°; sulfone m. 290°. The di-p-toluidide (V), C<sub>28</sub>H<sub>24</sub>O<sub>2</sub>N<sub>2</sub>S<sub>2</sub>, m. 233°, and the bis(p-nitroanilide), C<sub>26</sub>H<sub>18</sub>O<sub>6</sub>N<sub>4</sub>S<sub>2</sub>, light brown, m. 263°, of 2,2'-dithiodibenzoic acid were prepared from 2,2'-dithiodibenzoyl chloride (VI) and the corresponding amine. Passage of Cl into VI covered with CCl<sub>4</sub> until solution resulted and addition of the solution to ice-cold p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> in CCl<sub>4</sub> give 2-p-tolyl-1,2-benzisothiazolone, m. 135°; 2-(p-nitrophenyl) analog (VII) m. 238°; oxidation of VII with H<sub>2</sub>O<sub>2</sub> in hot AcOH gives N-(p-nitrophenyl)saccharin, pale yellow, m. 229°. V (3 g.) in 50 cc. CCl<sub>4</sub>, treated with 2 g. Br in 10 cc. AcOH, the precipitate of the bromothiol

boiled with 100 cc. AcOH, and the thiazolone oxidized with H<sub>2</sub>O<sub>2</sub> in hot HOAc gives VII. PhNMe<sub>2</sub> did not react with the 2-Me, 2-Ph, 2-p-tolyl, 2-(p-nitrophenyl), or 2-Bz derivs. of I. Thus, this reaction of the (arylsulfonyl)-1,2-benzisothiazolones depends on the joint action of the SO<sub>2</sub> and CO groups attached to the same N atom, the simultaneous presence of which facilitates the rupture of the heterocyclic ring.

IT 857487-10-6, Benzamide, o-(p-dimethylaminophenylthio)-N-methyl-N-(phenylsulfonyl)-  
(preparation of)  
RN 857487-10-6 CAPLUS  
CN Benzamide, o-(p-dimethylaminophenylthio)-N-methyl-N-(phenylsulfonyl)-  
(5CI) (CA INDEX NAME)



=> file registry

FILE 'REGISTRY' ENTERED AT 15:25:16 ON 29 DEC 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 28 DEC 2005 HIGHEST RN 870751-96-5  
DICTIONARY FILE UPDATES: 28 DEC 2005 HIGHEST RN 870751-96-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> file caplus

FILE 'CAPLUS' ENTERED AT 15:25:18 ON 29 DEC 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is  
held by the publishers listed in the PUBLISHER (PB) field (available  
for records published or updated in Chemical Abstracts after December  
26, 1996), unless otherwise indicated in the original publications.  
The CA Lexicon is the copyrighted intellectual property of the  
American Chemical Society and is provided to assist you in searching  
databases on STN. Any dissemination, distribution, copying, or storing  
of this information, without the prior written consent of CAS, is  
strictly prohibited.

FILE COVERS 1907 - 29 Dec 2005 VOL 144 ISS 1  
FILE LAST UPDATED: 28 Dec 2005 (20051228/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.

They are available for your review at:

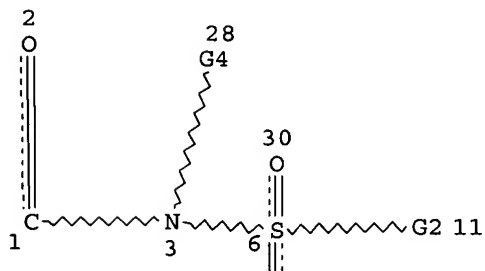
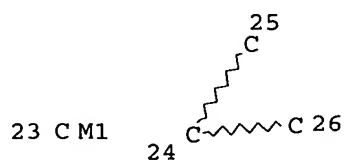
<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d stat que L114

L3 STR

C 27



Page 1-A

Ak 4

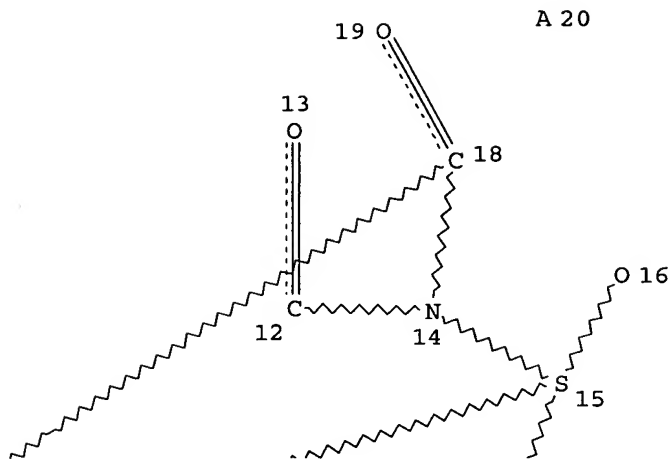
Cy 5

Page 1-B

||:  
O  
29

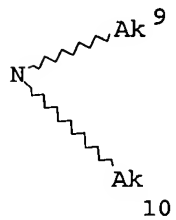
G3 22

8

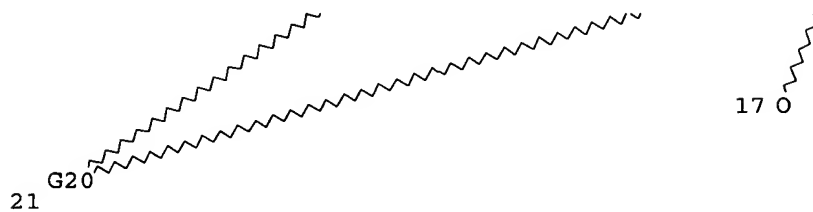


Page 2-A

N 7



Page 2-B



Page 3-A

VAR G2=4/5/7/8

VAR G3=1/12

VAR G4=5/23/24/27

REP G20=(1-5) 20-15 20-18

## NODE ATTRIBUTES:

|                            |    |       |    |                                             |
|----------------------------|----|-------|----|---------------------------------------------|
| HCOUNT                     | IS | M1    | AT | 23                                          |
| NSPEC                      | IS | C     | AT | 1                                           |
| NSPEC                      | IS | C     | AT | 2                                           |
| NSPEC                      | IS | C     | AT | 3                                           |
| NSPEC                      | IS | C     | AT | 4                                           |
| NSPEC                      | IS | C     | AT | 5                                           |
| NSPEC                      | IS | C     | AT | 6                                           |
| NSPEC                      | IS | R     | AT | 7                                           |
| NSPEC                      | IS | C     | AT | 8                                           |
| NSPEC                      | IS | C     | AT | 9                                           |
| NSPEC                      | IS | C     | AT | 10                                          |
| NSPEC                      | IS | C     | AT | 11                                          |
| NSPEC                      | IS | C     | AT | 12                                          |
| NSPEC                      | IS | C     | AT | 13                                          |
| NSPEC                      | IS | R     | AT | 14                                          |
| NSPEC                      | IS | R     | AT | 15                                          |
| NSPEC                      | IS | C     | AT | 16                                          |
| NSPEC                      | IS | C     | AT | 17                                          |
| NSPEC                      | IS | R     | AT | 18                                          |
| NSPEC                      | IS | C     | AT | 19                                          |
| NSPEC                      | IS | R     | AT | 20                                          |
| NSPEC                      | IS | R     | AT | 21                                          |
| NSPEC                      | IS | C     | AT | 22                                          |
| NSPEC                      | IS | C     | AT | 23                                          |
| NSPEC                      | IS | C     | AT | 24                                          |
| NSPEC                      | IS | C     | AT | 25                                          |
| NSPEC                      | IS | C     | AT | 26                                          |
| NSPEC                      | IS | C     | AT | 27                                          |
| NSPEC                      | IS | C     | AT | 28                                          |
| NSPEC                      | IS | C     | AT | 29                                          |
| NSPEC                      | IS | C     | AT | 30                                          |
| CONNECT                    | IS | E1    | RC | AT 16                                       |
| CONNECT                    | IS | E1    | RC | AT 17                                       |
| CONNECT                    | IS | E4    | RC | AT 27                                       |
| DEFAULT MLEVEL IS ATOM     |    |       |    |                                             |
| MLEVEL                     | IS | CLASS | AT | 1 2 3 4 6 8 9 10 12 13 16 17 19 23 24 25 26 |
|                            |    |       |    | 27 29 30                                    |
| GGCAT                      | IS | UNS   | AT | 5                                           |
| DEFAULT ECLEVEL IS LIMITED |    |       |    |                                             |

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 30

## STEREO ATTRIBUTES: NONE

L4 9125 SEA FILE=REGISTRY SSS FUL L3  
 L7 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.  
 L11 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.  
 L13 STR



X 21

22  
Ak  
O  
23

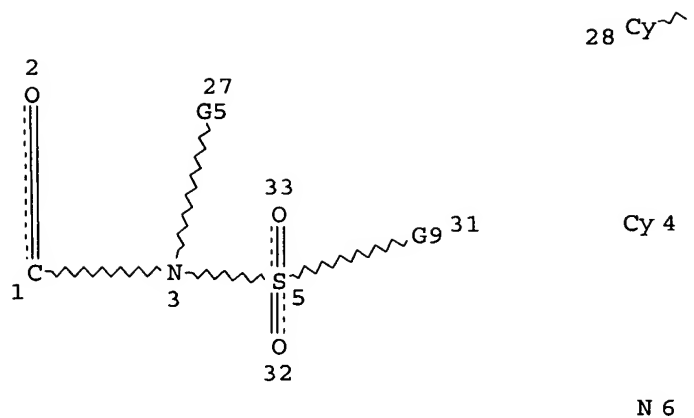
Ak 24  
Ak 25  
G4  
26

Page 1-A

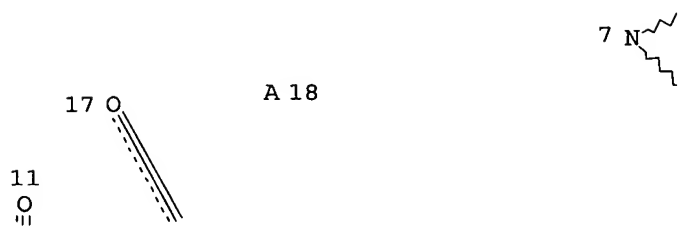
Ak 29

G8 30

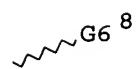
Page 1-B



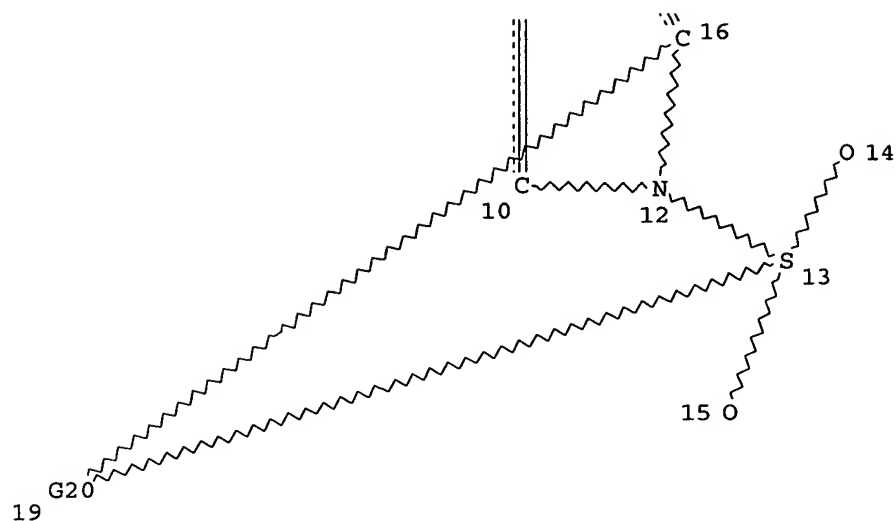
G3 20



Page 2-A



Page 2-B



Page 3-A

VAR G3=1/10

VAR G4=21/23

VAR G5=4/24/25

VAR G6=24/25

VAR G8=21/23/29

VAR G9=4/6/7/24/25/28

REP G20=(1-5) 18-13 18-16

NODE ATTRIBUTES:

|       |      |    |    |
|-------|------|----|----|
| NSPEC | IS C | AT | 1  |
| NSPEC | IS C | AT | 2  |
| NSPEC | IS C | AT | 3  |
| NSPEC | IS C | AT | 4  |
| NSPEC | IS C | AT | 5  |
| NSPEC | IS R | AT | 6  |
| NSPEC | IS C | AT | 7  |
| NSPEC | IS C | AT | 8  |
| NSPEC | IS C | AT | 9  |
| NSPEC | IS C | AT | 10 |
| NSPEC | IS C | AT | 11 |
| NSPEC | IS R | AT | 12 |
| NSPEC | IS R | AT | 13 |
| NSPEC | IS C | AT | 14 |
| NSPEC | IS C | AT | 15 |
| NSPEC | IS R | AT | 16 |
| NSPEC | IS C | AT | 17 |
| NSPEC | IS R | AT | 18 |
| NSPEC | IS R | AT | 19 |
| NSPEC | IS C | AT | 20 |
| NSPEC | IS C | AT | 21 |
| NSPEC | IS C | AT | 22 |
| NSPEC | IS C | AT | 23 |
| NSPEC | IS C | AT | 24 |
| NSPEC | IS C | AT | 25 |
| NSPEC | IS C | AT | 26 |
| NSPEC | IS C | AT | 27 |
| NSPEC | IS C | AT | 28 |
| NSPEC | IS C | AT | 29 |
| NSPEC | IS C | AT | 30 |

```

NSPEC   IS C       AT 31
NSPEC   IS C       AT 32
NSPEC   IS C       AT 33
CONNECT IS E1  RC AT 4
CONNECT IS E1  RC AT 14
CONNECT IS E1  RC AT 15
CONNECT IS E1  RC AT 24
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS AT 1 2 3 5 7 10 11 14 15 17 21 22 23 24 25 29 32
33
GGCAT   IS UNS AT 4
DEFAULT ECLEVEL IS LIMITED

```

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

```

L15      2986 SEA FILE=REGISTRY SUB=L4 SSS FUL L13
L19      1085 SEA FILE=REGISTRY SUB=L15 SSS FUL L7
L21      754 SEA FILE=REGISTRY SUB=L15 SSS FUL L11
L24      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L26      691 SEA FILE=REGISTRY SUB=L19 SSS FUL L24
L28      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L30      372 SEA FILE=REGISTRY SUB=L21 SSS FUL L28
L34      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L36      283 SEA FILE=REGISTRY SUB=L30 SSS FUL L34
L38      STR

```

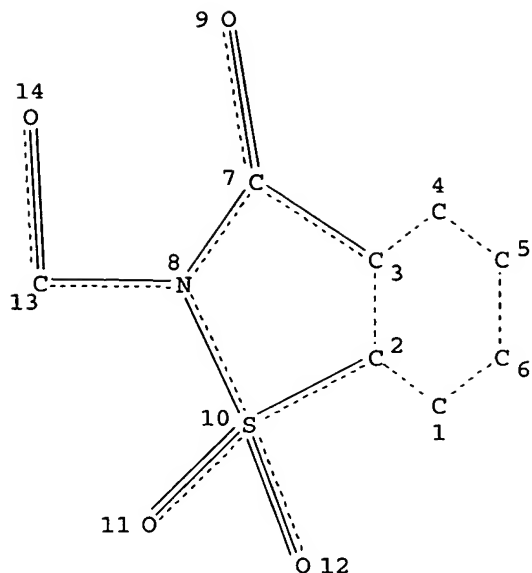
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L40      432 SEA FILE=REGISTRY SUB=L26 SSS FUL L38
L41      467 SEA FILE=REGISTRY ABB=ON PLU=ON L40 OR L36
L42      172 SEA FILE=CAPLUS ABB=ON PLU=ON L41
L70      STR

```



## NODE ATTRIBUTES:

|       |      |    |    |
|-------|------|----|----|
| NSPEC | IS R | AT | 1  |
| NSPEC | IS R | AT | 2  |
| NSPEC | IS R | AT | 3  |
| NSPEC | IS R | AT | 4  |
| NSPEC | IS R | AT | 5  |
| NSPEC | IS R | AT | 6  |
| NSPEC | IS R | AT | 7  |
| NSPEC | IS R | AT | 8  |
| NSPEC | IS C | AT | 9  |
| NSPEC | IS R | AT | 10 |
| NSPEC | IS C | AT | 11 |
| NSPEC | IS C | AT | 12 |
| NSPEC | IS C | AT | 13 |
| NSPEC | IS C | AT | 14 |

DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 9 11 12 13 14  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 14

## STEREO ATTRIBUTES: NONE

L78 95 SEA FILE=REGISTRY SUB=L19 SSS FUL L70  
 L79 63 SEA FILE=REGISTRY SUB=L21 SSS FUL L70  
 L80 103 SEA FILE=REGISTRY ABB=ON PLU=ON L78 OR L79  
 L81 47 SEA FILE=CAPLUS ABB=ON PLU=ON L80  
~~L114 22 SEA FILE=CAPLUS ABB=ON PLU=ON L42 AND L81~~

=> d ibib abs hitstr L114 1-22

L114 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:982594 CAPLUS

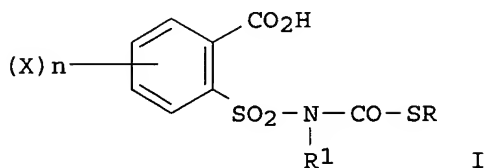
DOCUMENT NUMBER: 143:286179

TITLE: Preparation of N-(phenylsulfonyl)thiolcarbamates and

agrochemical fungicides containing them  
 INVENTOR(S): Itsuki, Yoshinori; Shibata, Takashi; Kajiki, Ryu;  
 Kose, Katsumi; Yamaji, Koji; Takahashi, Satoru  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan; Ihara  
 Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE       | APPLICATION NO. | DATE     |
|------------------------|--------|------------|-----------------|----------|
| JP 2005239614          | A2     | 20050908   | JP 2004-50263   | 20040225 |
| PRIORITY APPLN. INFO.: |        |            | JP 2004-50263   | 20040225 |
| OTHER SOURCE(S):       | MARPAT | 143:286179 |                 |          |

GI



AB The title compds. I [R = H, C1-12 alkyl, C2-6 alkenyl, C1-6 alkylthio-C1-6 alkyl, (un)substituted benzyl (substituent = halo, NO<sub>2</sub>, cyano, C1-6 alkyl, NR<sub>2</sub>R<sub>3</sub>, etc.), (un)substituted Ph, O, S, and/or N-containing C3-10 (un)substituted heterocyclyl; R<sub>1</sub> = H, C1-6 alkyl, C2-6 alkenyl, C1-6 cyanoalkyl, (un)substituted benzyl; R<sub>2</sub>, R<sub>3</sub> = H, C1-6 alkyl, C2-6 alkenyl, (un)substituted phenyl; R<sub>4</sub>, R<sub>5</sub> = H, C1-6 alkyl; X = halo, NO<sub>2</sub>, cyano, C1-6 (halo)alkyl, C1-6 (halo)alkoxy, NR<sub>2</sub>R<sub>3</sub>; n = 0-4] or their salts are prepared Agrochem. fungicides containing I (salts) are also claimed. Thus, application of 2-methylthiocarbonylamino-sulfonylbenzoic acid, prepared by reacting saccharin Na with ClCOSMe and hydrolyzing the N-acylated product, to rice seedlings showed ≥80% control rate against *Piricularia oryzae*.

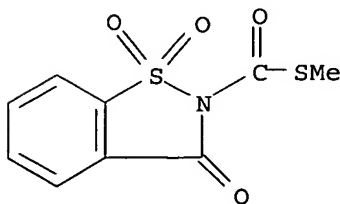
IT 863554-51-2P 863554-54-5P 863554-55-6P  
 863554-56-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

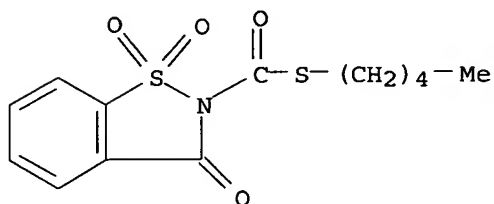
(preparation of N-(phenylsulfonyl)thiolcarbamates as agrochem. fungicides)

RN 863554-51-2 CAPLUS

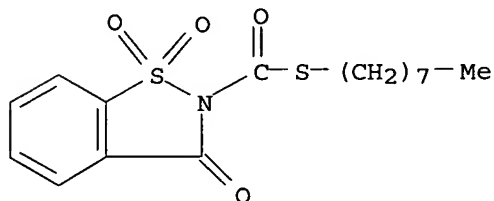
CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-methyl ester,  
 1,1-dioxide (9CI) (CA INDEX NAME)



RN 863554-54-5 CAPLUS

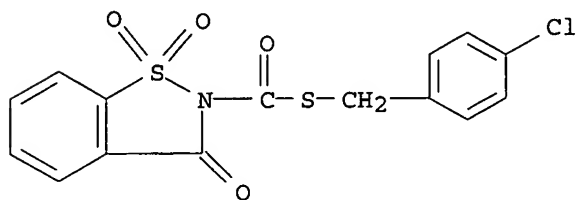
CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-pentyl ester,  
1,1-dioxide (9CI) (CA INDEX NAME)

RN 863554-55-6 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-octyl ester,  
1,1-dioxide (9CI) (CA INDEX NAME)

RN 863554-56-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-[(4-chlorophenyl)methyl] ester, 1,1-dioxide (9CI) (CA INDEX NAME)



L114 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:961974 CAPLUS

DOCUMENT NUMBER: 143:266910

TITLE: Preparation of benzisothiazoline derivatives as  
agricultural or horticultural plant disease control  
agentsINVENTOR(S): Itsuki, Yoshinori; Shibata, Masaru; Kajiki, Ryu;  
Furuse, Katsumi; Yamaji, Kouji; Takahashi, SatoruPATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan; Ihara  
Chemical Industry Co., Ltd.

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

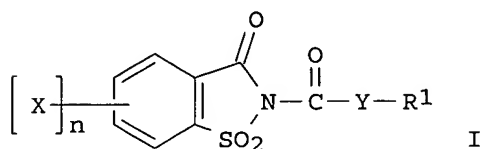
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | KIND | DATE     | APPLICATION NO.   | DATE       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-------------------|------------|
| WO 2005079576                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A1   | 20050901 | WO 2005-JP2710    | 20050221   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,<br>NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,<br>TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,<br>RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG |      |          |                   |            |
| PRIORITY APPLN. INFO.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |          | JP 2004-50262     | A 20040225 |
| OTHER SOURCE(S):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |          | MARPAT 143:266910 |            |
| GI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |                   |            |

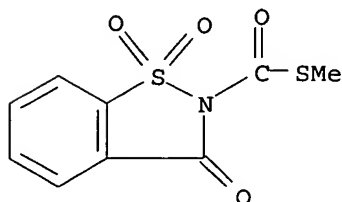


AB Title compds. I [Y = O, S; R1 = alkyl, etc. when Y = O; R1 = alkyl, etc. when Y = S; X = halo, etc.; n = 0-4] were prepared For example, treatment of sodium saccharin with heptyl chloroformate afforded 2-heptyloxycarbonyl-1,2-benzoylthiazolin-3-one 1,1-dioxide (II) in 80% yield. Compound II controlled Pyricularia oryzae by 80-100%. Compds. I are claimed useful as agricultural or horticultural plant disease control agents. Formulations are given.

IT **863554-51-2P 863554-52-3P 863554-53-4P**  
**863554-54-5P 863554-55-6P 863554-56-7P**  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzisothiazoline derivs. as agricultural or horticultural plant disease control agents)

RN 863554-51-2 CAPLUS

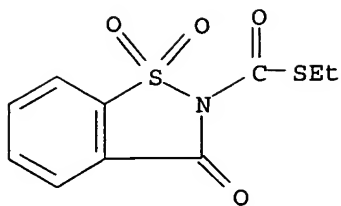
CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-methyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



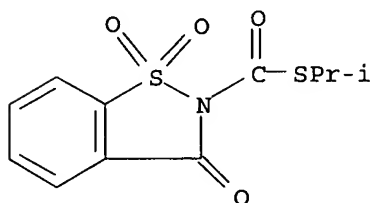
RN 863554-52-3 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

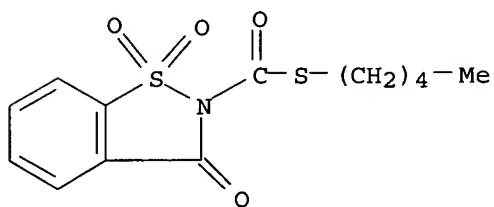




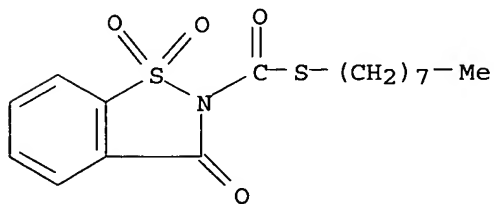
RN 863554-53-4 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-(1-methylethyl)  
 ester, 1,1-dioxide (9CI) (CA INDEX NAME)



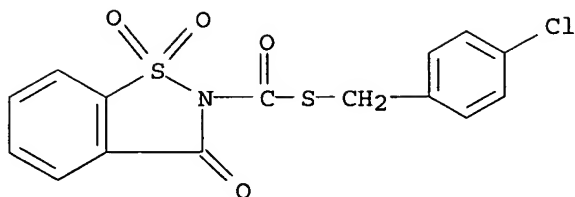
RN 863554-54-5 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-pentyl ester,  
 1,1-dioxide (9CI) (CA INDEX NAME)



RN 863554-55-6 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-octyl ester,  
 1,1-dioxide (9CI) (CA INDEX NAME)



RN 863554-56-7 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carbothioic acid, 3-oxo-, S-[(4-  
 chlorophenyl)methyl] ester, 1,1-dioxide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:638826 CAPLUS

DOCUMENT NUMBER: 143:149406

TITLE: Acoustic sensors and methods

INVENTOR(S): Baetzold, John P.; Benson, Karl E.; Bommarito, Mario G.; Daniels, Michael P.; Everaerts, Albert I.; Flanigan, Peggy-Jean P.; Free, Benton M.; Kipke, Cary A.; Lakshmi, Brinda B.; Leir, Charles M.; Moore, George G. I.; Nguyen, Lang N.; Shah, Rahul; Stark, Peter A.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

| PATENT NO.    | KIND                                                                                                                                                                                                                                                                                                                                                                                               | DATE     | APPLICATION NO. | DATE     |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|----------|
| WO 2005066092 | A2                                                                                                                                                                                                                                                                                                                                                                                                 | 20050721 | WO 2004-US42382 | 20041217 |
| WO 2005066092 | A3                                                                                                                                                                                                                                                                                                                                                                                                 | 20051013 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW     |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                                 |          |                 |          |
| US 2005112672 | A1                                                                                                                                                                                                                                                                                                                                                                                                 | 20050526 | US 2004-987522  | 20041112 |
| US 2005227076 | A1                                                                                                                                                                                                                                                                                                                                                                                                 | 20051013 | US 2004-987075  | 20041112 |
| WO 2005064349 | A2                                                                                                                                                                                                                                                                                                                                                                                                 | 20050714 | WO 2004-US42455 | 20041217 |
| WO 2005064349 | A3                                                                                                                                                                                                                                                                                                                                                                                                 | 20051110 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,                                                                                                                                    |          |                 |          |

MR, NE, SN, TD, TG  
 WO 2005075973 A2 20050818 WO 2004-US42662 20041217  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-533169P P 20031230  
 US 2004-987075 A 20041112  
 US 2004-987522 A 20041112  
 US 2003-713174 A2 20031114  
 US 2003-714053 A2 20031114

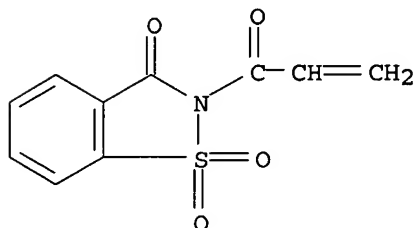
AB This article discloses acoustic sensors, preferably surface acoustic wave sensors, and more preferably shear horizontal surface acoustic wave sensors that include soluble polymers, monomers (optionally mixed with oligomers and/or polymers formed from such monomers), or multifunctional compds., for example, that can function as either waveguide materials, immobilization materials for secondary capture agents (e.g., antibodies), or both.

IT 41643-17-8P 851778-65-9P 852233-93-3P  
 852233-95-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (acoustic sensors and methods)

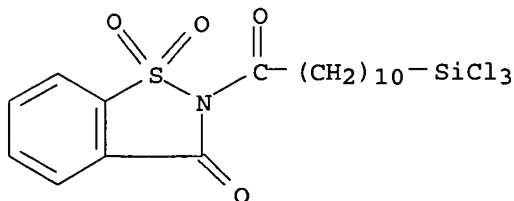
RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
 (CA INDEX NAME)



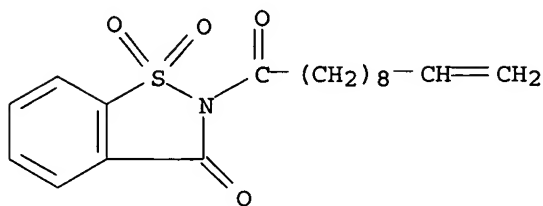
RN 851778-65-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[1-oxo-11-(trichlorosilyl)undecyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)

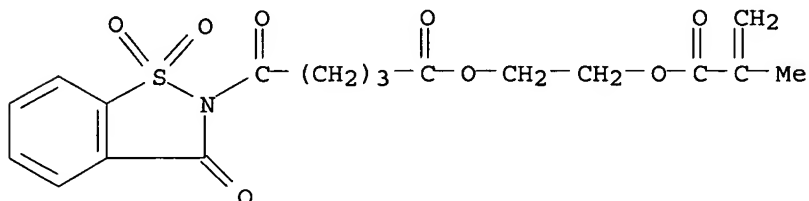


RN 852233-93-3 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-10-undecenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



RN 852233-95-5 CAPLUS  
CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide (9CI) (CA  
INDEX NAME)



L114 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:638661 CAPLUS

DOCUMENT NUMBER: 143:134114

TITLE: Soluble polymers as amine capture agents and methods

INVENTOR(S): Benson, Karl E.; Bommarito, G. Marco; Everaerts,  
Albert I.; Lakshmi, Brinda B.; Leir, Charles M.;  
Moore, George G. I.; Shah, Rahul R.; Stark, Peter A.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2005065370 | A2   | 20050721 | WO 2004-US43917 | 20041229 |
| WO 2005065370 | A3   | 20050811 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG

WO 2005064349 A2 20050714 WO 2004-US42455 20041217  
 WO 2005064349 A3 20051110  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

WO 2005075973 A2 20050818 WO 2004-US42662 20041217  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-533169P P 20031230

US 2004-15399 A 20041217

AB The invention relates to soluble polymers and methods for the preparation thereof,

wherein the polymers of the present invention have pendant acylsulfonamide amine-reactive groups that can be used for the capture of amine containing materials. Thus, mixing 154 mL DMF with 4-carboxybenzenesulfonamide (I) 30.0, succinic anhydride 16.41 and triethylamine 33.19 g at 50° under N for 4 h, after cooling to room temperature, combining the resulting mixture with 18.27 mL Ac<sub>2</sub>O, stirring for 1 h and working up gave a N-succinimide compound of I which was converted to an acyl chloride using thionyl chloride. Esterifying the succinimide with 2-hydroxyethyl methacrylate and polymerizing the resulting ester with a comonomer gave a polymer having amine-reactive pendant.

IT 859232-53-4P 859232-54-5P 859232-59-0P

859232-60-3P 859232-61-4P 859232-62-5P

RL: ARU (Analytical role, unclassified); IMF (Industrial manufacture);

ANST (Analytical study); PREP (Preparation)

(manufacture of soluble polymers as amine capture agents and method of use)

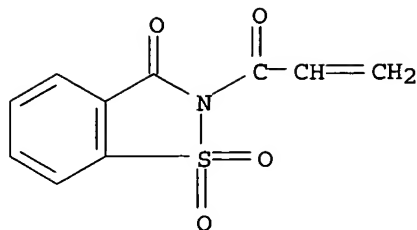
RN 859232-53-4 CAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-(1-oxo-2-propenyl)-1,2-benzisothiazol-3(2H)-one 1,1-dioxide (9CI) (CA INDEX NAME)

CM 1

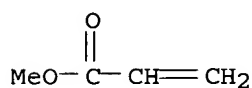
CRN 41643-17-8

CMF C10 H7 N O4 S



CM 2

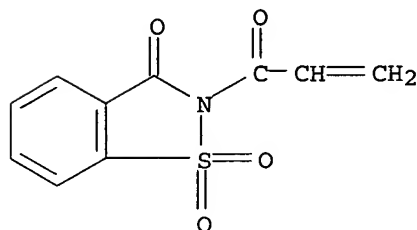
CRN 96-33-3  
CMF C4 H6 O2



RN 859232-54-5 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
2-(1-oxo-2-propenyl)-1,2-benzisothiazol-3(2H)-one 1,1-dioxide (9CI) (CA  
INDEX NAME)

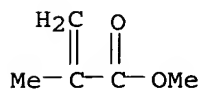
CM 1

CRN 41643-17-8  
CMF C10 H7 N O4 S



CM 2

CRN 80-62-6  
CMF C5 H8 O2

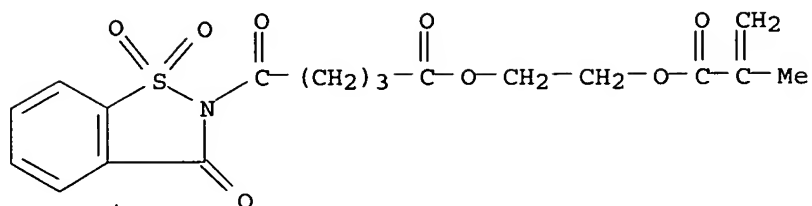


RN 859232-59-0 CAPLUS  
CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide, polymer with  
methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 852233-95-5

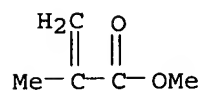
CMF C18 H19 N O8 S



CM 2

CRN 80-62-6

CMF C5 H8 O2



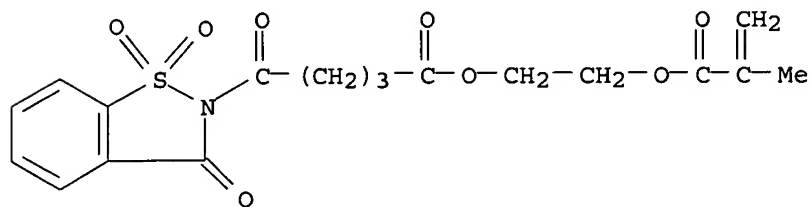
RN 859232-60-3 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide, polymer with  
 benzoylphenyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA  
 INDEX NAME)

CM 1

CRN 852233-95-5

CMF C18 H19 N O8 S

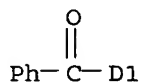
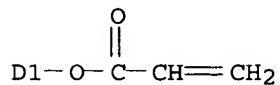


CM 2

CRN 50855-88-4

CMF C16 H12 O3

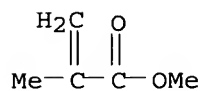
CCI IDS



CM 3

CRN 80-62-6

CMF C5 H8 O2



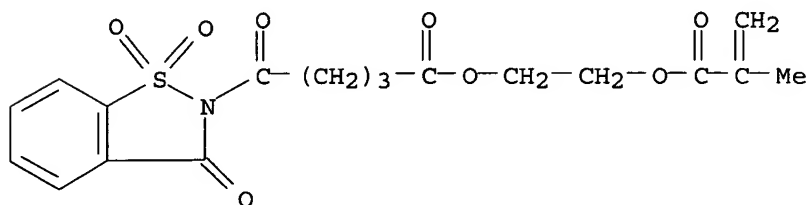
RN 859232-61-4 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide, polymer with  
N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 852233-95-5

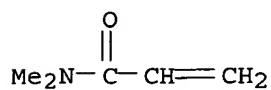
CMF C18 H19 N O8 S



CM 2

CRN 2680-03-7

CMF C5 H9 N O

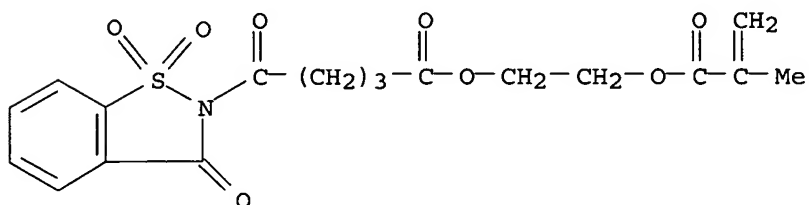




RN 859232-62-5 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide, polymer with  
 methyl 2-methyl-2-propenoate and rel-(1R,2R,4R)-1,7,7-  
 trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX  
 NAME)

CM 1

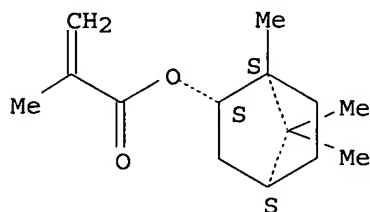
CRN 852233-95-5  
 CMF C18 H19 N O8 S



CM 2

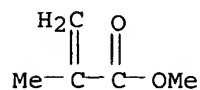
CRN 7534-94-3  
 CMF C14 H22 O2

Relative stereochemistry.

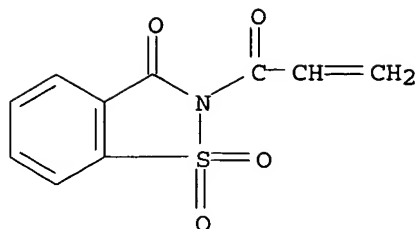


CM 3

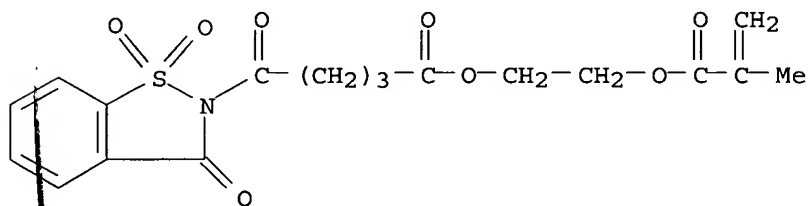
CRN 80-62-6  
 CMF C5 H8 O2



IT **41643-17-8P**, 2-Acryloylsaccharin **852233-95-5P**  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (manufacture of soluble polymers as amine capture agents and method of use)  
 RN 41643-17-8 CAPLUS  
 CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
 (CA INDEX NAME)



RN 852233-95-5 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide (9CI) (CA  
 INDEX NAME)



L114 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:453738 CAPLUS  
 DOCUMENT NUMBER: 142:478402  
 TITLE: N-sulfonylaminocarbonyl containing compounds  
 INVENTOR(S): Benson, Karl E.; David, Moses M.; Kipke, Cary A.;  
 Lakshmi, Brinda B.; Leir, Charles M.; Moore, George G.  
 I.; Shah, Rahul R.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S.  
 Ser. No. 713,174.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2005112672 | A1   | 20050526 | US 2004-987522  | 20041112 |
| US 2005107615 | A1   | 20050519 | US 2003-713174  | 20031114 |
| WO 2005064349 | A2   | 20050714 | WO 2004-US42455 | 20041217 |
| WO 2005064349 | A3   | 20051110 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG  
WO 2005066092 A2 20050721 WO 2004-US42382 20041217  
WO 2005066092 A3 20051013  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG  
WO 2005075973 A2 20050818 WO 2004-US42662 20041217  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG  
PRIORITY APPLN. INFO.: US 2003-713174 A2 20031114  
US 2003-533169P P 20031230  
US 2004-987075 A 20041112  
US 2004-987522 A 20041112

OTHER SOURCE(S): MARPAT 142:478402

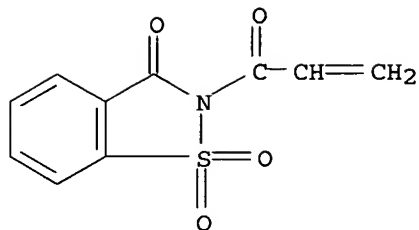
AB Comps. having two reactive functional groups are described that can be used to provide a connector group between a substrate and an amine-containing material. The first reactive functional group can be used to provide attachment to a surface of a substrate. The second reactive functional group is a N-sulfonylaminocarbonyl group that can be reacted with an amine-containing material, particularly a primary aliphatic amine, to form a carbonylimino-containing connector group. The invention also provides articles and methods for immobilizing amine-containing materials to a substrate.

IT 41643-17-8P 851778-58-0P 851778-59-1P  
851778-60-4P 851778-61-5P 851778-62-6P  
851778-63-7P 851778-65-9P 851778-69-3P  
852233-89-7P 852233-93-3P 852233-94-4P  
852233-95-5P 852233-96-6P

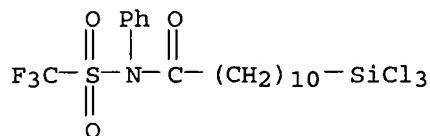
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)  
(N-sulfonylaminocarbonyl containing comps.)

RN 41643-17-8 CAPLUS

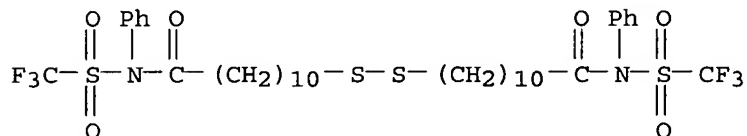
CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



RN 851778-58-0 CAPLUS

CN Undecanamide, N-phenyl-11-(trichlorosilyl)-N-[(trifluoromethyl)sulfonyl]-  
(9CI) (CA INDEX NAME)

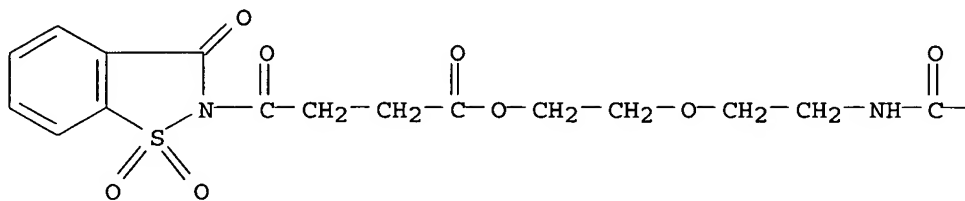
RN 851778-59-1 CAPLUS

CN Undecanamide, 11,11'-dithiobis[N-phenyl-N-[(trifluoromethyl)sulfonyl]-  
(9CI) (CA INDEX NAME)

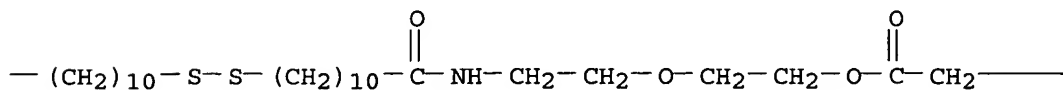
RN 851778-60-4 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-butanoic acid, γ,3-dioxo-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester, 1,1,1',1'-tetraoxide (9CI) (CA INDEX NAME)

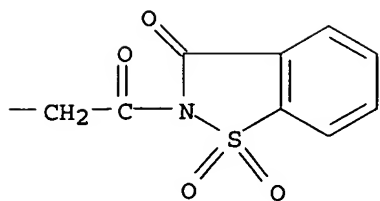
PAGE 1-A



PAGE 1-B



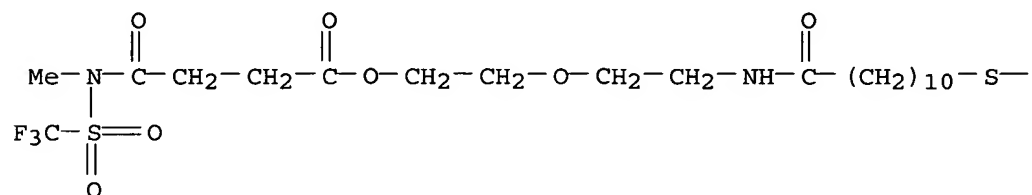
PAGE 1-C



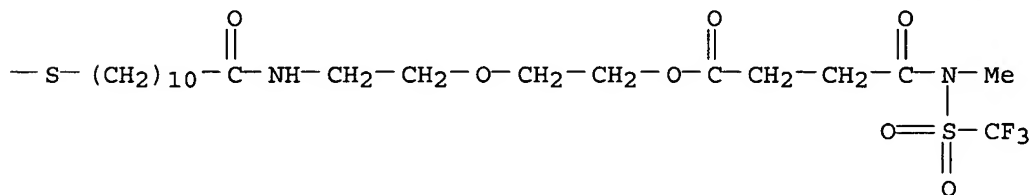
RN 851778-61-5 CAPLUS

CN Butanoic acid, 4-[methyl[(trifluoromethyl)sulfonyl]amino]-4-oxo-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester (9CI) (CA INDEX NAME)

PAGE 1-A



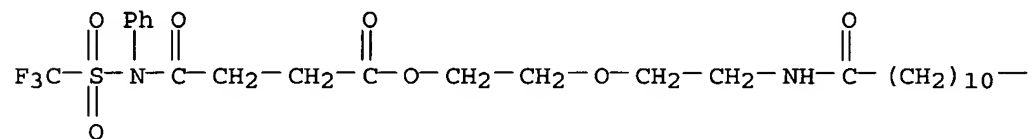
PAGE 1-B



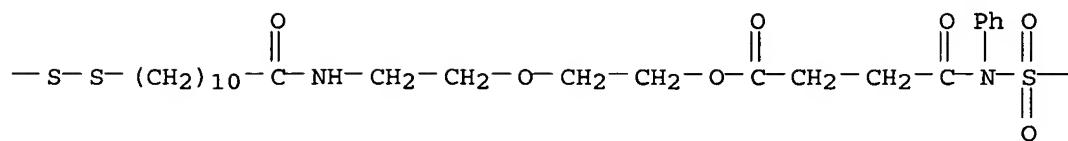
RN 851778-62-6 CAPLUS

CN Butanoic acid, 4-oxo-4-[phenyl[(trifluoromethyl)sulfonyl]amino]-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester (9CI) (CA INDEX NAME)

PAGE 1-A



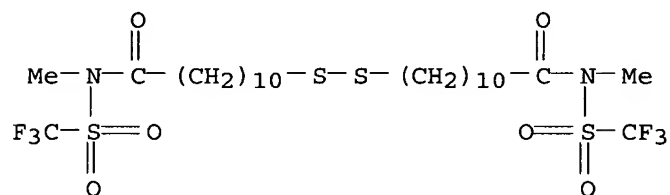
PAGE 1-B



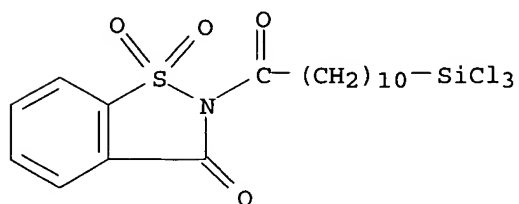
PAGE 1-C



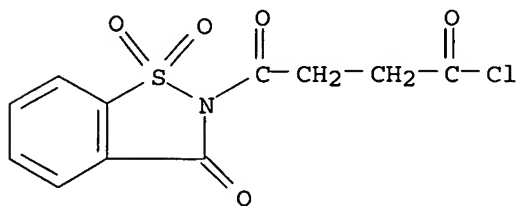
RN 851778-63-7 CAPLUS

CN Undecanamide, 11,11'-dithiobis [N-methyl-N-[(trifluoromethyl) sulfonyl] -  
(9CI) (CA INDEX NAME)

RN 851778-65-9 CAPLUS

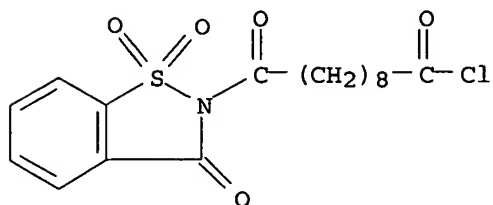
CN 1,2-Benzisothiazol-3(2H)-one, 2-[1-oxo-11-(trichlorosilyl)undecyl]-,  
1,1-dioxide (9CI) (CA INDEX NAME)

RN 851778-69-3 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-butanoyl chloride, γ,3-dioxo-, 1,1-dioxide  
(9CI) (CA INDEX NAME)

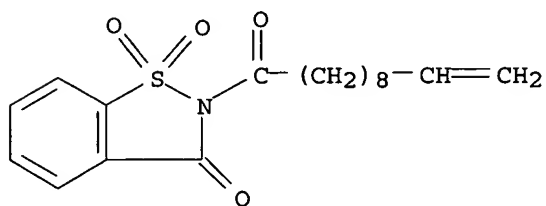
RN 852233-89-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-decanoyl chloride, 1,3-dioxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



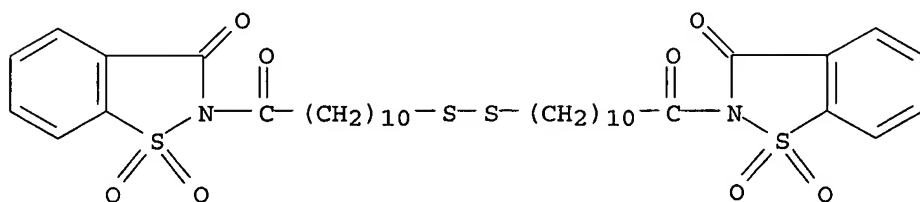
RN 852233-93-3 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-10-undecenyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



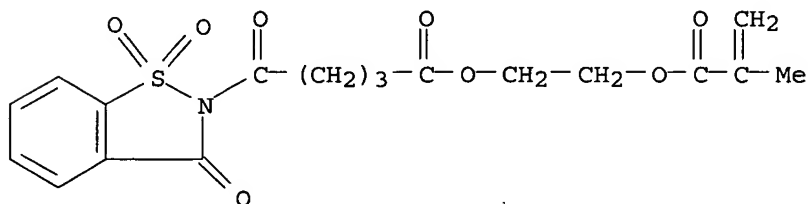
RN 852233-94-4 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2,2'-[dithiobis(1-oxo-11,1-undecanediy)]bis-, 1,1,1',1'-tetraoxide (9CI) (CA INDEX NAME)



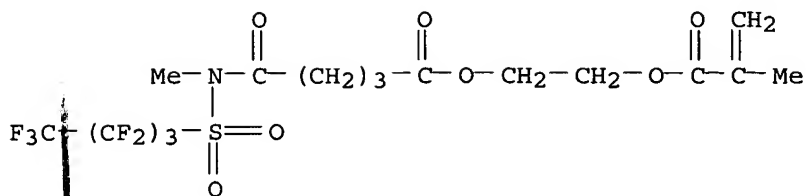
RN 852233-95-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 852233-96-6 CAPLUS

CN Pentanoic acid, 5-[methyl[(nonafluorobutyl)sulfonyl]amino]-5-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)



1114 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:431463 CAPLUS

DOCUMENT NUMBER: 142:478409

TITLE: N-sulfonylaminocarbonyl containing compounds

INVENTOR(S): Benson, Karl E.; David, Moses M.; Kipke, Cary A.;  
Lakshmi, Brinda B.; Leir, Charles M.; Moore, George  
G.; Shah, Rahul

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: U.S. Pat. Appl. Publ., 37 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2005107615 | A1   | 20050519 | US 2003-713174  | 20031114 |
| US 2005112672 | A1   | 20050526 | US 2004-987522  | 20041112 |
| WO 2005049590 | A2   | 20050602 | WO 2004-US37965 | 20041112 |
| WO 2005049590 | A3   | 20050825 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-713174 A2 20031114  
US 2003-533169P P 20031230

OTHER SOURCE(S): MARPAT 142:478409

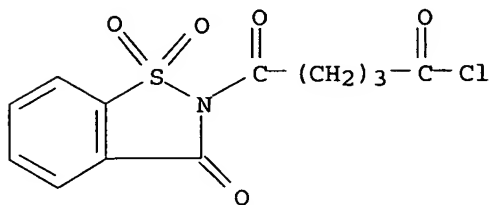
AB Comps. having two reactive functional groups are described that can be used to provide a connector group between a substrate and an amine-containing material. The first reactive functional group can be used to provide attachment to a surface of a substrate. The second reactive functional group is a N-sulfonylaminocarbonyl group that can be reacted with an amine-containing material, particularly a primary aliphatic amine, to form a carbonylimino-containing connector group. The invention also provides articles and methods for immobilizing amine-containing materials to a substrate.

IT 851778-67-1 851778-68-2 851778-69-3

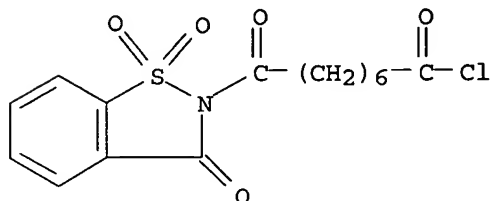
RL: RCT (Reactant); RACT (Reactant or reagent)  
(N-sulfonylaminocarbonyl containing compds.)



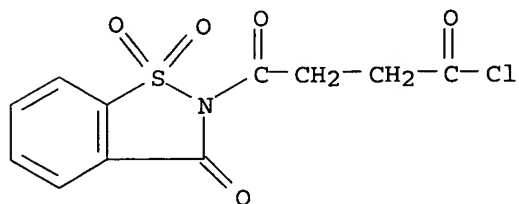
RN 851778-67-1 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-pentanoyl chloride,  $\delta$ ,3-dioxo-,  
 1,1-dioxide (9CI) (CA INDEX NAME)



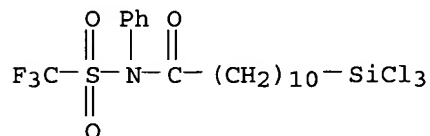
RN 851778-68-2 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-octanoyl chloride,  $\eta$ ,3-dioxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



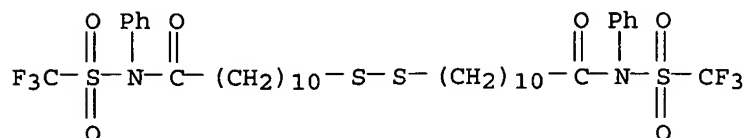
RN 851778-69-3 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-butanoyl chloride,  $\gamma$ ,3-dioxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



IT 851778-58-0P 851778-59-1P 851778-60-4P  
 851778-61-5P 851778-62-6P 851778-63-7P  
 851778-65-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (N-sulfonylaminocarbonyl containing compds.)  
 RN 851778-58-0 CAPLUS  
 CN Undecanamide, N-phenyl-11-(trichlorosilyl)-N-[(trifluoromethyl)sulfonyl]-  
 (9CI) (CA INDEX NAME)



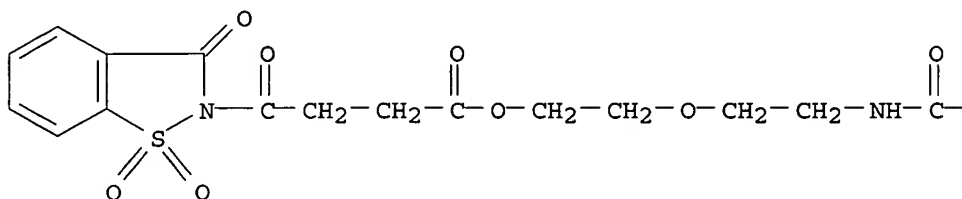
RN 851778-59-1 CAPLUS

CN Undecanamide, 11,11'-dithiobis[N-phenyl-N-[(trifluoromethyl)sulfonyl]-  
(9CI) (CA INDEX NAME)

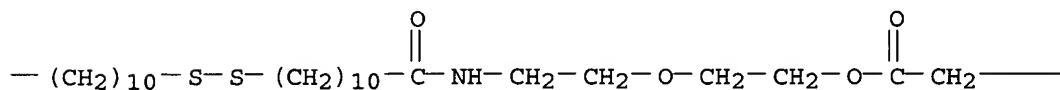
RN 851778-60-4 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-butanoic acid,  $\gamma$ ,3-dioxo-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester, 1,1,1',1'-tetraoxide (9CI) (CA INDEX NAME)

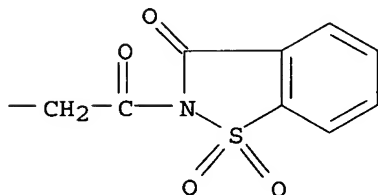
PAGE 1-A



PAGE 1-B



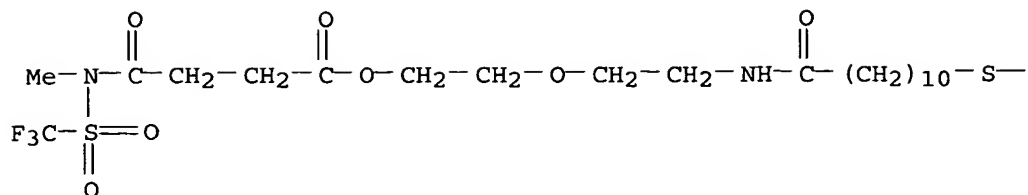
PAGE 1-C



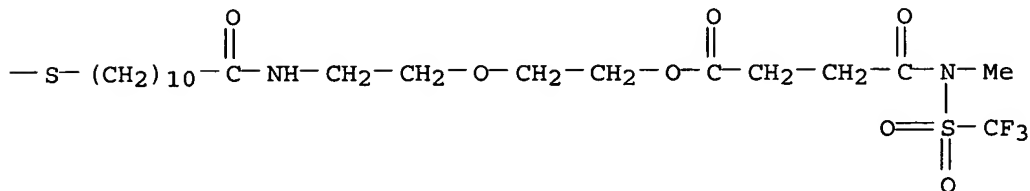
RN 851778-61-5 CAPLUS

CN Butanoic acid, 4-[methyl[(trifluoromethyl)sulfonyl]amino]-4-oxo-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester (9CI) (CA INDEX NAME)

PAGE 1-A



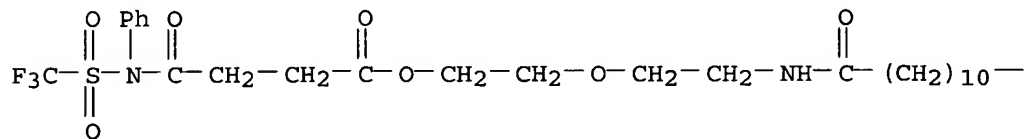
PAGE 1-B



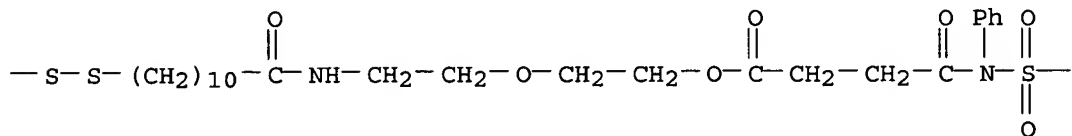
RN 851778-62-6 CAPLUS

CN Butanoic acid, 4-oxo-4-[phenyl[(trifluoromethyl)sulfonyl]amino]-, 7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

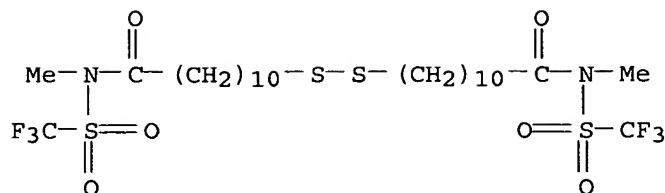


PAGE 1-C



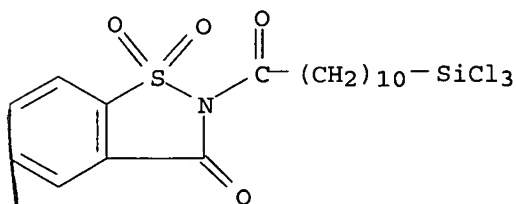
RN 851778-63-7 CAPLUS

CN Undecanamide, 11,11'-dithiobis[N-methyl-N-[(trifluoromethyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 851778-65-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[1-oxo-11-(trichlorosilyl)undecyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)



1114 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:36727 CAPLUS

DOCUMENT NUMBER: 140:112981

TITLE: Ink containing dyes and acid precursors for inkjet, ink set for inkjet recording and inkjet recording method

INVENTOR(S): Taguchi, Toshiki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 34 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                                                                                                                    | KIND | DATE     | APPLICATION NO. | DATE       |
|-------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|------------|
| EP 1380623                                                                                                                    | A1   | 20040114 | EP 2003-15588   | 20030714   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK |      |          |                 |            |
| JP 2004043665                                                                                                                 | A2   | 20040212 | JP 2002-204171  | 20020712   |
| US 2004011247                                                                                                                 | A1   | 20040122 | US 2003-617818  | 20030714   |
| PRIORITY APPLN. INFO.:                                                                                                        |      |          | JP 2002-204171  | A 20020712 |

OTHER SOURCE(S): MARPAT 140:112981

AB An ink for inkjet recording comprises a dye, water, a water-miscible organic solvent and a precursor of acids, and thereby is rendered resistant to image blur even under a high humidity condition.

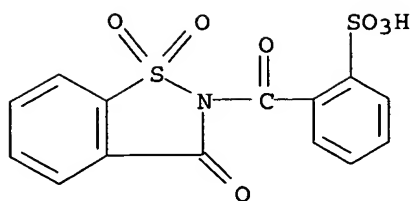
IT 644979-44-2

RL: MOA (Modifier or additive use); USES (Uses)

(acid precursor; ink containing dyes and acid precursors for inkjet, ink set for inkjet recording and inkjet recording method)

RN 644979-44-2 CAPLUS

CN Benzenesulfonic acid, 2-[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, potassium salt (9CI) (CA INDEX NAME)



● K

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

✓ L114 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:288810 CAPLUS

DOCUMENT NUMBER: 137:83888

TITLE: Spectra-structure correlations in solid metal saccharinates. II. Ab initio molecular structures and vibrational spectra of N-substituted saccharins at the HF level

AUTHOR(S): Naumov, Pance; Jovanovski, Gligor; Ohashi, Yuji

CORPORATE SOURCE: Institute of Chemistry, Faculty of Sciences, Sv. Kiril i Metodij University, Skopje, MK-1001, Macedonia

SOURCE: Solid State Sciences--(2002)--4(2), 271-283

CODEN: SSSCFJ; ISSN: 1293-2558

PUBLISHER: Editions Scientifiques et Medicales Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Ground-state ab initio mol. geometries and vibrational spectra of 24 N-substituted isolated saccharins with small-size B, Br, C, Cl, F, N, O, P or S-groups and the parent mol. are predicted at RHF/6-31G level to examine the mol. structural changes stemming from N-substitution of saccharin (o-sulfobenzimide). Trends in the mol. geometrical parameters of the sulfimide ring and the carbonyl stretching frequency are discussed in relation to the electronic properties of the substituent and the solid state effects. The results are compared with the crystallog. data for N-substituted saccharins and metal saccharinato salts/complexes retrieved from the Cambridge Structural Database. The ability of several theor. methods to describe the substitution/deprotonation of the conjugated CO-NH-SO<sub>2</sub> structure is summarized. Electronic properties of the substituent affect significantly only the immediate C-N and S-N bonds by as much as  $\pm 0.014$  Å, while other bonds are relatively less influenced ( $\pm 0.004$  Å). Combined with the effects of the crystal packing and thermal vibrations, they impose flexibility on the intramol. lengths up to  $\pm 0.02$  Å. High correlation ( $R = 0.966$ ) between the theor.  $\nu(\text{CO})$  frequencies and C-O distances is predictable for both of these parameters, but is lowered notably in the crystal by both vibrational and solid-state circumstances. From the structural viewpoint, the Nsac-X bonds ( $X = \text{B, Br, C, Cl, F, N, O, P, S}$ ; sac denotes saccharin) behave similarly to the purely covalent Nsac-metal bonds.

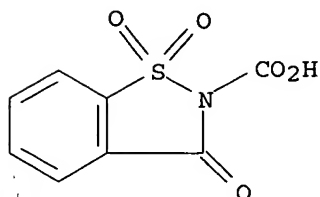
IT 440671-29-4, N-Carboxysaccharin

RL: PRP (Properties)

(mol. structures and vibrational spectra of N-substituted saccharins calculated at HF level)

RN 440671-29-4 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L114 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:708887 CAPLUS

DOCUMENT NUMBER: 123:242068

TITLE: Thermal recording sheets providing durable image

INVENTOR(S): Minami, Toshiaki; Nagai, Tomoaki; Hamada, Kaoru;

PATENT ASSIGNEE(S): Nippon Seishi Kk, Japan; Yoshitomi Pharmaceutical Industries, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

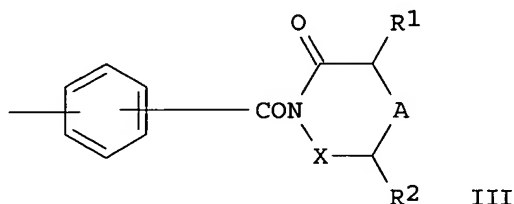
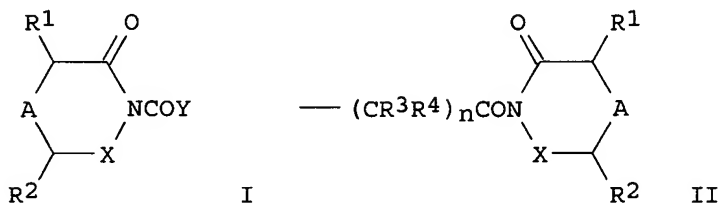
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.                | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------------------|------|----------|-----------------|----------|
| JP 07108757               | A2   | 19950425 | JP 1993-255593  | 19931013 |
| JP 2838873                | B2   | 19981216 |                 |          |
| PRIORITY APPLN. INFO.: GI |      |          | JP 1993-255593  | 19931013 |



AB The title recording sheets comprise a support coated with a heat-sensitive

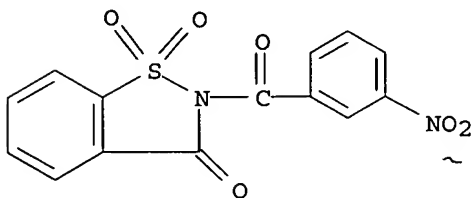
layer containing a basic colorless dye, an organic color developer, and  $\geq 1$  compound I [R1, R2 = H, alkyl, R1 and R2 may form a ring; A = single or double bond; X = C:O, SO<sub>2</sub>; Y = (substituted) alkyl, arylalkyl, (substituted) aryl, II, III (R3, R4 = H, alkyl; n = 0-8)]. A thermal recording sheet using 3-(N-ethyl-N-isoamylamino)-6-methyl-7-anilino-fluoran and N,N'-isophthaloylbisaccharin for the color developer gave high d. images with good resistance to heat, water, and oils.

IT 168090-12-8

RL: DEV (Device component use); USES (Uses)  
(thermal recording material containing succinimide derivative)

RN 168090-12-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(3-nitrobenzoyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)

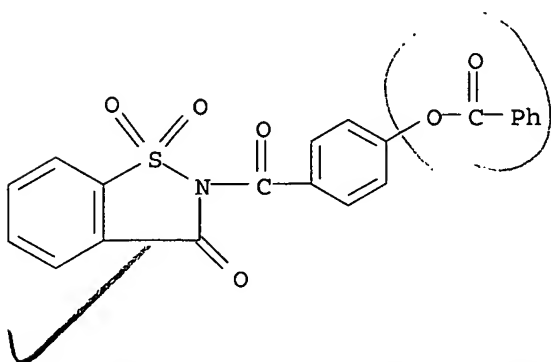


IT 168090-07-1P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP  
(Preparation); USES (Uses)  
(thermal recording material containing succinimide derivative)

RN 168090-07-1 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[4-(benzoyloxy)benzoyl]-, 1,1-dioxide  
(9CI) (CA INDEX NAME)



L114 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:122256 CAPLUS

DOCUMENT NUMBER: 114:122256

TITLE: Heterocycles by intramolecular aza-Wittig reactions of  
iminophosphoranes obtained from 2-azidobenzoyl- and  
2-azidobenzylidene derivatives

AUTHOR(S): Luheshi, Abdul Bassett N.; Salem, Salem M.; Smalley,  
Robert K.; Kennewell, Peter D.; Westwood, Robert

CORPORATE SOURCE: Dep. Chem. Appl. Chem., Univ. Salford, Salford, M5  
4WT, UK

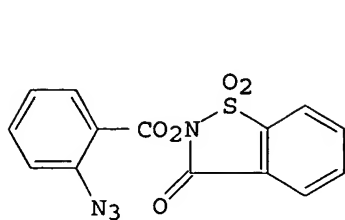
SOURCE: Tetrahedron Letters (1990), 31(45), 6561-4  
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

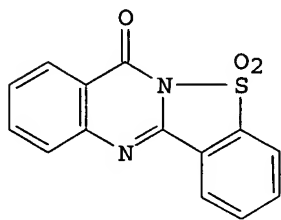
LANGUAGE: English

OTHER SOURCE(S) :  
GI

CASREACT 114:122256



I



II

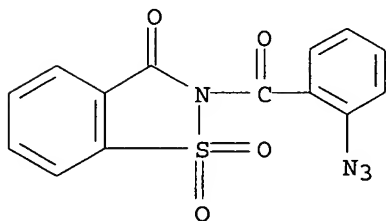
AB The use of iminophosphoranes in intramol. aza-Wittig reactions to prepare pyrrolo[1,2-a]benzimidazoles, fused quinazolinones, quinolines, and an isoindolo[1,3,4]benzotriazepinone is reported. Thus, (azidobenzoyl)oxobenzoisothiazoline dioxides I was treated with (EtO)3P to give 88% oxobenzoisothiazoloquinazoline dioxides II.

IT 132416-64-9P

RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(generation of iminophosphorane and intramol. aza-Wittig reaction of)

RN 132416-64-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(2-azidobenzoyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



L114 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1986:424260 CAPLUS

DOCUMENT NUMBER: 105:24260

TITLE: Acylated saccharin derivatives.

INVENTOR(S): Salzburg, Herbert; Hajek, Manfred; Hagemann, Hermann;  
Kuehle, Engelbert; Fuehrer, Wolfgang; Haenssler, Gerd;  
Brandes, Wilhelm; Reinecke, Paul Dr

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 35 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

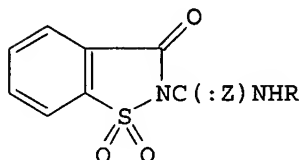
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 3433391 | A1   | 19860320 | DE 1984-3433391 | 19840912 |
| EP 177740  | A1   | 19860416 | EP 1985-110995  | 19850831 |
| EP 177740  | B1   | 19880928 |                 |          |



R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE

|                        |    |                    |                 |            |
|------------------------|----|--------------------|-----------------|------------|
| AT 37543               | E  | 19881015           | AT 1985-110995  | 19850831   |
| US 4713389             | A  | 19871215           | US 1985-774271  | 19850910   |
| DK 8504133             | A  | 19860313           | DK 1985-4133    | 19850911   |
| ES 546877              | A1 | 19860316           | ES 1985-546877  | 19850911   |
| AU 8547384             | A1 | 19860320           | AU 1985-47384   | 19850911   |
| AU 571734              | B2 | 19880421           |                 |            |
| JP 61068477            | A2 | 19860408           | JP 1985-199614  | 19850911   |
| ZA 8506951             | A  | 19860430           | ZA 1985-6951    | 19850911   |
| BR 8504387             | A  | 19860708           | BR 1985-4387    | 19850911   |
| DD 239516              | A5 | 19861001           | DD 1985-280522  | 19850911   |
| HU 39966               | A2 | 19861128           | HU 1985-3430    | 19850911   |
| PRIORITY APPLN. INFO.: |    |                    | DE 1984-3433391 | A 19840912 |
| OTHER SOURCE(S):       |    | CASREACT 105:24260 | EP 1985-110995  | A 19850831 |
| GI                     |    |                    |                 |            |



I

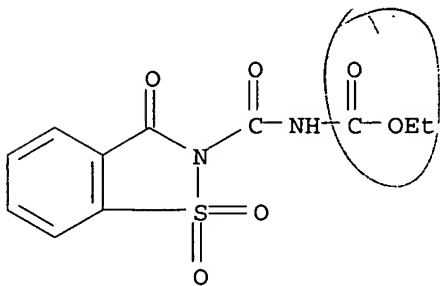
AB Title compds. I [R = COR1, SO2OR2; R1 = alkyl, haloalkyl, alkoxy, (un)substituted aryl, etc.; R2 = alkyl, phenyl; Z = O, S] are prepared as bactericides and fungicides. Thus, ethoxycarbonyl isocyanate reacted with saccharin in Me2CO, in the presence of Et3N, to give I (R = EtO2C, Z = O) (II). II gave better protection of rice against Pyricularia oryzae than did the standard 3-allyloxy-1,2-benzisothiazole 1,1-dioxide.

IT 102823-02-9P 102823-03-0P 102823-04-1P  
 102823-05-2P 102823-06-3P 102823-07-4P  
 102823-08-5P 102823-09-6P 102823-11-0P  
 102823-12-1P 102823-13-2P 102823-14-3P  
 102823-15-4P 102823-16-5P 102823-17-6P  
 102823-18-7P 102823-19-8P 102823-20-1P  
 102823-21-2P 102823-22-3P 102823-24-5P  
 102823-25-6P 102823-26-7P 102823-27-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as bactericide and fungicide)

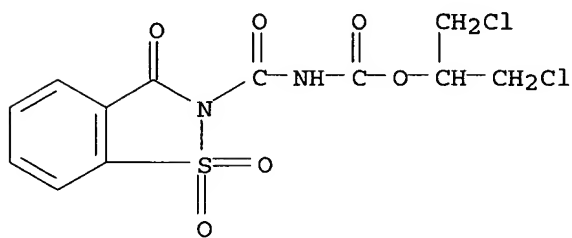
RN 102823-02-9 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



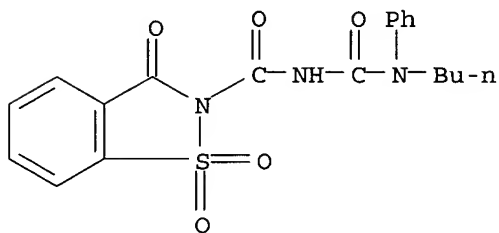
RN 102823-03-0 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-chloro-1-(chloromethyl)ethyl ester (9CI) (CA INDEX NAME)



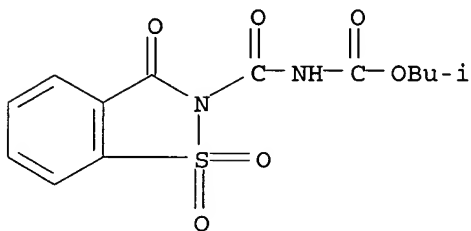
RN 102823-04-1 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(butylphenylamino)carbonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



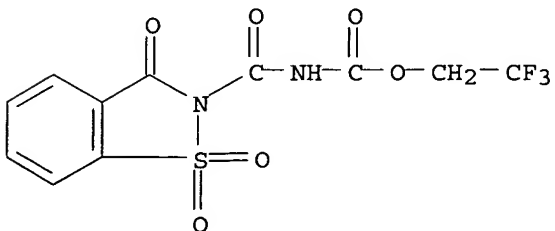
RN 102823-05-2 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-methylpropyl ester (9CI) (CA INDEX NAME)



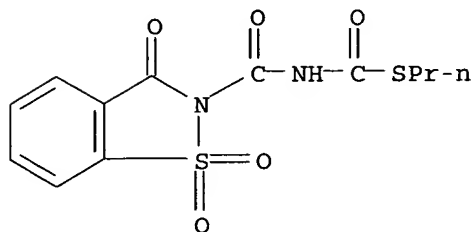
RN 102823-06-3 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2,2,2-trifluoroethyl ester (9CI) (CA INDEX NAME)



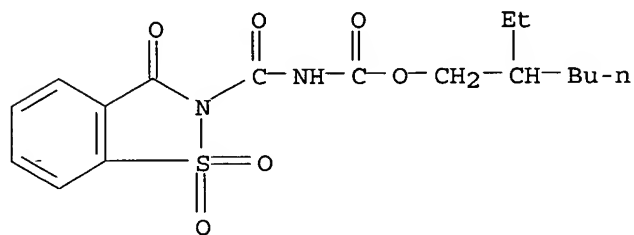
RN 102823-07-4 CAPLUS

CN Carbamothioic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, S-propyl ester (9CI) (CA INDEX NAME)



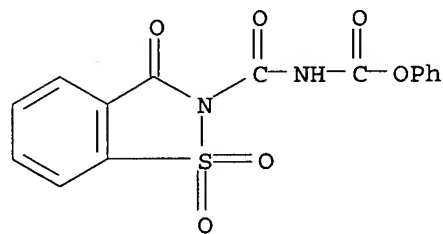
RN 102823-08-5 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)



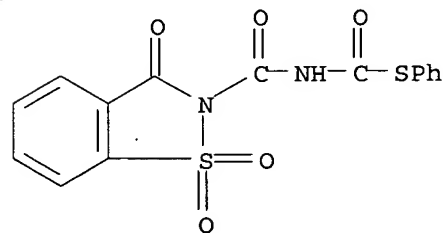
RN 102823-09-6 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, phenyl ester (9CI) (CA INDEX NAME)



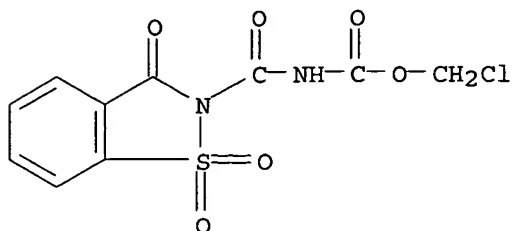
RN 102823-11-0 CAPLUS

CN Carbamothioic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, S-phenyl ester (9CI) (CA INDEX NAME)



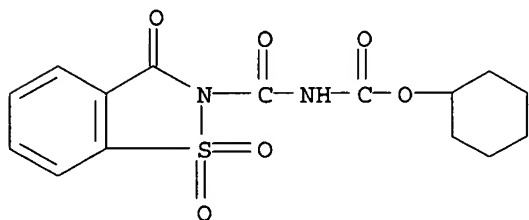
RN 102823-12-1 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, chloromethyl ester (9CI) (CA INDEX NAME)



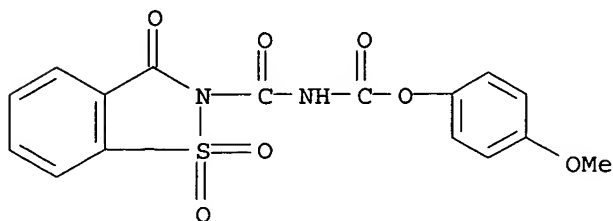
RN 102823-13-2 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, cyclohexyl ester (9CI) (CA INDEX NAME)



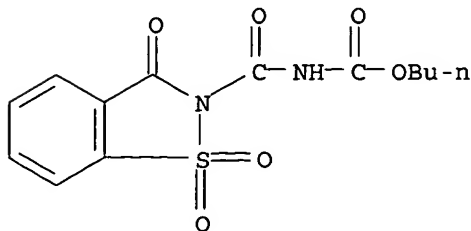
RN 102823-14-3 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 4-methoxyphenyl ester (9CI) (CA INDEX NAME)



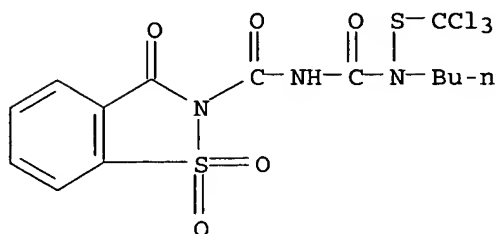
RN 102823-15-4 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, butyl ester (9CI) (CA INDEX NAME)



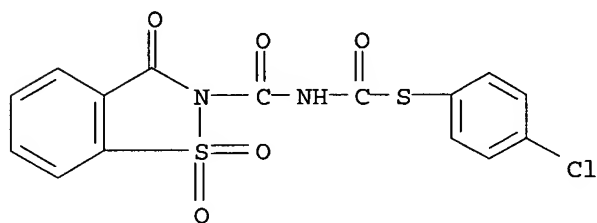
RN 102823-16-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[[butyl[(trichloromethyl)thio]amino]carbonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



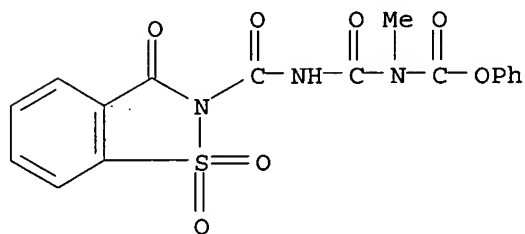
RN 102823-17-6 CAPLUS

CN Carbamothioic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, S-(4-chlorophenyl) ester (9CI) (CA INDEX NAME)



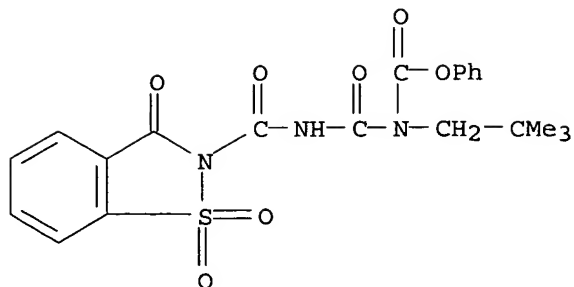
RN 102823-18-7 CAPLUS

CN Carbamic acid, [[[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]amino]carbonyl]methyl-, phenyl ester (9CI) (CA INDEX NAME)



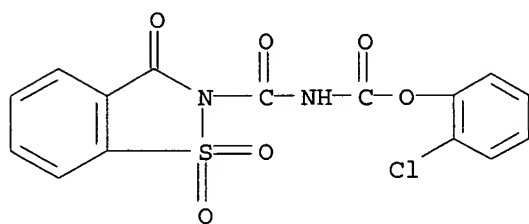
RN 102823-19-8 CAPLUS

CN Carbamic acid, (2,2-dimethylpropyl)[[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]amino]carbonyl]-, phenyl ester (9CI) (CA INDEX NAME)



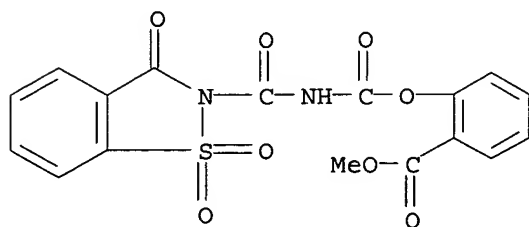
RN 102823-20-1 CAPLUS

CN Carbamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, 2-chlorophenyl ester (9CI) (CA INDEX NAME)



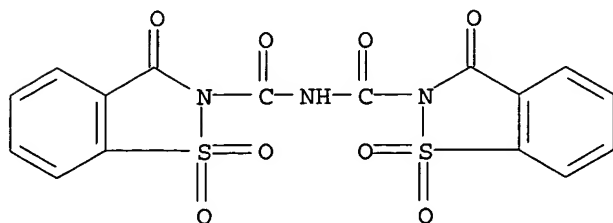
RN 102823-21-2 CAPLUS

CN Benzoic acid, 2-[[[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]amino]carbonyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



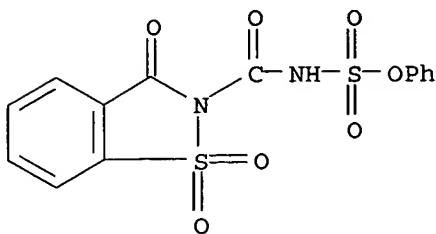
RN 102823-22-3 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



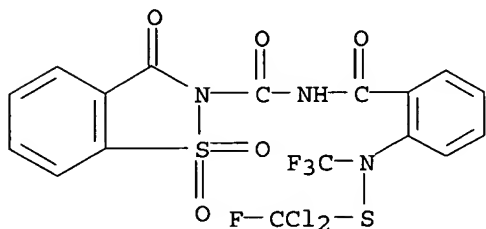
RN 102823-24-5 CAPLUS

CN Sulfamic acid, [(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]-, phenyl ester (9CI) (CA INDEX NAME)



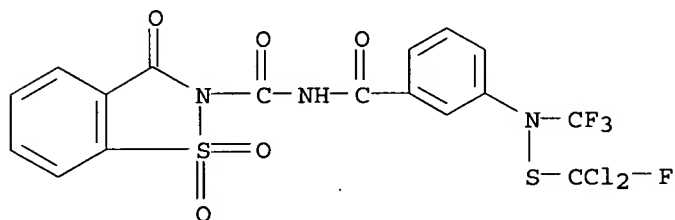
RN 102823-25-6 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[2-[[[(dichlorofluoromethyl)thio](trifluoromethyl)amino]benzoyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



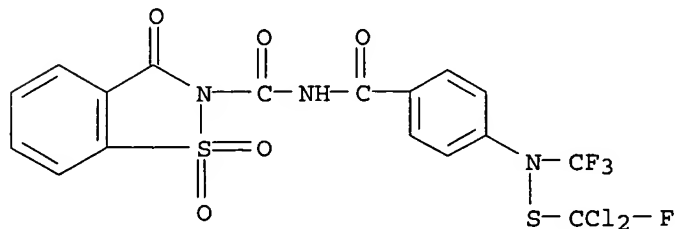
RN 102823-26-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[3-[[[(dichlorofluoromethyl)thio](trifluoromethyl)amino]benzoyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 102823-27-8 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[4-[[[(dichlorofluoromethyl)thio](trifluoromethyl)amino]benzoyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



L114 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1980:633737 CAPLUS

DOCUMENT NUMBER: 93:233737

TITLE: Inhibition of elastase and other serine proteases by heterocyclic acylating agents

AUTHOR(S): Zimmerman, Morris; Morman, Harriet; Mulvey, Dennis; Jones, Howard; Frankshun, Robert; Ashe, Bonnie M.

CORPORATE SOURCE: Merck, Sharp Dohme Res. Lab., Rahway, NJ, 07065, USA

SOURCE: Journal of Biological Chemistry (1980), 255(20), 9848-51

CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

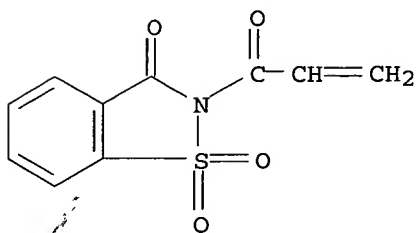
LANGUAGE: English

AB The N-acyl saccharins and N-acyl benzoisothiazolinones form a new class of acylating inhibitors of the serine proteases with a broad spectrum of activity. However, they are unique in that they are able to differentiate between various serine proteases because of the differential stability of the presumptive acylenzyme formed. Furoyl saccharin was the best studied among this class of inhibitors. Evidence is reported that the amide bond in the heterocyclic ring of this compound is cleaved by porcine pancreatic and human leukocyte elastases and chymotrypsin, forming acylenzymes. Radioisotope studies indicate that the saccharin portion of furoyl saccharin is attached to these enzymes in approx. a 1:1 molar ratio with enzyme, blocking the active site serine. The acyl-elastases thus prepared are unusually stable to hydrolysis, with k<sub>deacyl</sub> values at neutral pH of 2.3 + 10<sup>-6</sup> s<sup>-1</sup> for porcine pancreatic elastase and 1.4 + 10<sup>-6</sup> s for human leukocyte elastase. Trypsin appears to be inhibited by a different mechanism. These data suggest a new approach to the design of specific synthetic protease inhibitors.

IT 41643-17-8

RL: BIOL (Biological study)  
(serine proteinase inhibition by)

RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)

L114 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1977:502315 CAPLUS

DOCUMENT NUMBER: 87:102315

TITLE: Acylsaccharins and acyl-3-oxo-1,2-benzisothiazolines

INVENTOR(S): Mulvey, Dennis; Jones, Howard; Zimmerman, Morris

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: Ger. Offen., 41 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

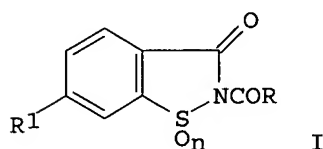
LANGUAGE: German



FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| DE 2636599             | A1   | 19770303 | DE 1976-2636599 | 19760813   |
| DE 2636599             | C2   | 19851024 |                 |            |
| US <u>4195023</u>      | A    | 19800325 | US 1975-606271  | 19750820   |
| DK 7603521             | A    | 19770221 | DK 1976-3521    | 19760804   |
| SE 7608748             | A    | 19770221 | SE 1976-8748    | 19760804   |
| SE 434946              | B    | 19840827 |                 |            |
| SE 434946              | C    | 19841220 |                 |            |
| NL 7608676             | A    | 19770222 | NL 1976-8676    | 19760804   |
| FR 2321288             | A1   | 19770318 | FR 1976-25077   | 19760818   |
| FR 2321288             | B1   | 19781222 |                 |            |
| CH 627461              | A    | 19820115 | CH 1976-10565   | 19760819   |
| JP 52025769            | A2   | 19770225 | JP 1976-98836   | 19760820   |
| CH 625232              | A    | 19810915 | CH 1980-4357    | 19800605   |
| PRIORITY APPLN. INFO.: |      |          | US 1975-606271  | A 19750820 |
|                        |      |          | CH 1976-10565   | A 19760819 |

GI



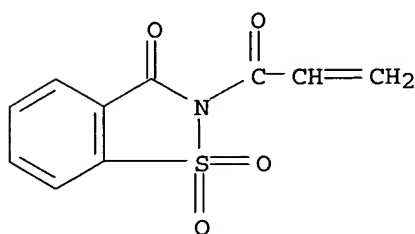
AB The title compds. I (R = 2-furyl, R1 = CO2Me, R = 2-furyl, CHET2, R1 = H, n = 2; R = 2-FC6H4, 2-thienyl, Ph, 3-MeOC6H4, Me3C, CHET2, cyclopropyl, vinyl, 2-furyl, 4-sulfo-2-furyl, R1 = H, n = 0), useful as elastase inhibitors and thus in treating emphysema, were prepared by acylating the corresponding saccharins or oxobenzisothiazolines with RCOCl, or by cleaving (2-ClCOC6H4S)2 with Cl2 and cyclizing the resultant 2-ClCOC6H4SCl with 2-furamide or Et2CHCONH2. I had inhibitory doses<sup>50</sup> of 0.2-2.5 µg/mL against elastase. I (R = 2-furyl, R1 = H, n = 0) gave 74% inhibition of emphysema at 3 mg in hamsters.

IT 41643-17-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and elastase-inhibiting activity of)

RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)

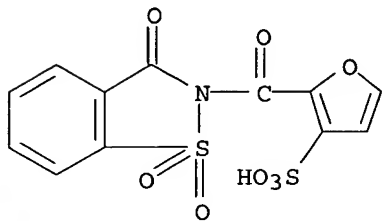


IT 63633-87-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 63633-87-4 CAPLUS

CN 3-Furansulfonic acid, 2-[(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)carbonyl]- (9CI) (CA INDEX NAME)



L114 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1975:140119 CAPLUS

DOCUMENT NUMBER: 82:140119

TITLE: 2-Substituted-1,2-benzisothiazoline-3-oxo-1,1-dioxide

INVENTOR(S): Chiyomaru, Isao; Ikeda, Takuro; Takida, Kiyoshi; Ito, Hideo

PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 6 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| JP 49020779            | B4   | 19740527 | JP 1970-119663  | 19701228   |
| PRIORITY APPLN. INFO.: |      |          | JP 1970-119663  | A 19701228 |

GI For diagram(s), see printed CA Issue.

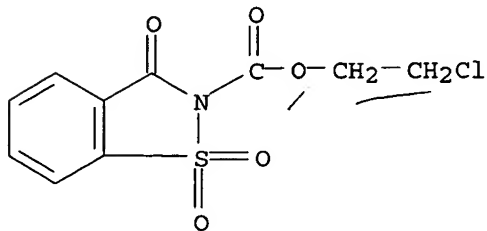
AB Benzoisothiazolinones I (R1 = Me, ClCH2CH2, Me2CH, Ph, 4-BrC6H4, 4-ClC6H4, 4-MeC6H4, 4-O2NC6H4), useful as bactericides, were prepared by alkoxyacylation of saccharin (II) by R1O2CCl with NaCO3 or NaHCO3. Thus, 18.3 g II in MeCN was stirred with ClCH2CH2O2Cl and 8.4 g NaHCO3 2 hr at 40° to give 81% I (R1 = ClCH2CH2).

IT 54952-63-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of bactericidal)

RN 54952-63-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, 2-chloroethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

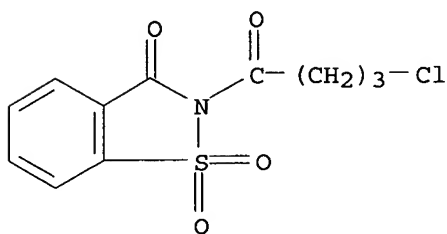


L114 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

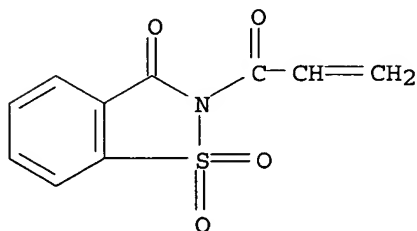
ACCESSION NUMBER: 1973:144282 CAPLUS  
 DOCUMENT NUMBER: 78:144282  
 TITLE: Fungicides for agricultural use  
 INVENTOR(S): Chiyomaru, Isao; Kawada, Seigo; Takita, Kiyoshi  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 47043332 | B4   | 19721219 | JP 1971-31822   | 19710512 |
| JP 51016497 |      | 19760000 | JP              |          |

AB Benzisothiazolone dioxide derivs. such as 2-(1-oxopropyl)-1,2-benzisothiazol-3-one 1,1-dioxide (I) [37952-89-9], 2-(1-oxopentyl)-1,2-benzisothiazol-3-one 1,1-dioxide [40199-31-3], and 2-(1-oxooctyl)-1,2-benzisothiazol-3-one 1,1-dioxide [40199-32-4] were used as fungicides for plants. These fungicides were effective against Piricularia oryzae, Glomerella cingulata and Phytophthora infestans. I(1.25 kg/10 are) was effective for rice blight.  
 IT 41643-15-6 41643-17-8  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (fungicides)  
 RN 41643-15-6 CAPLUS  
 CN 1,2-Benzisothiazol-3(2H)-one, 2-(4-chloro-1-oxobutyl)-, 1,1-dioxide (9CI)  
 (CA INDEX NAME)



RN 41643-17-8 CAPLUS  
 CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
 (CA INDEX NAME)



✓ L114 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1973:124224 CAPLUS  
 DOCUMENT NUMBER: 78:124224  
 TITLE: Syntheses of imide derivatives  
 AUTHOR(S): Kato, Kiyoshi; Yoshida, Matayasu; Ishikawa, Yoichiro  
 CORPORATE SOURCE: Gov. Ind. Res. Inst., Osaka, Japan  
 SOURCE: Yuki Gosei Kagaku Kyokaishi (1972), 30(10), 897-9  
 CODEN: YGKKA; ISSN: 0037-9980

DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese

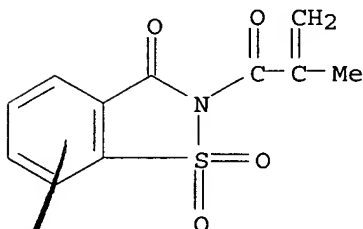
AB 2-cis-Δ4-Tetrahydrophthalimidoethyl (70.2%), phthalimidomethyl (85.7%), 2-phthalimidoethyl (64.4%), and 2-naphthalimidoethyl (100%) acrylates, 2-cis-Δ4-tetrahydrophthalimidoethyl (72.6%), 2-naphthalimidoethyl (100%), and 2-o-sulfobenzoimidoethyl methacrylates (74.3%), N-acryloylphthalimide (72.1%), N-methacryloyl succinimide (93.4%), N-methacryloylphthalimide (94.4%) and N-methacryloyl-o-sulfobenzoimide (93.6%) were prepared by the condensation of acryloyl chloride or methacryloyl chloride with the imidoalc. or imide and NEt<sub>3</sub> at 20-40° in MeCN, Me<sub>2</sub>CO, dioxane, benzene, or DMF. 2-Phthalimidoethyl methacrylate (93.4%) was prepared by esterification of methacrylic acid with N-(2-hydroxyethyl)phthalimide in the presence of p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and p-(HO)C<sub>6</sub>H<sub>4</sub> in benzene.

IT 40581-15-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 40581-15-5 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(2-methyl-1-oxo-2-propenyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



✓ L114 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1972:564667 CAPLUS  
 DOCUMENT NUMBER: 77:164667  
 TITLE: 2-Substituted 1,2-benzisothiazolin-3-one 1,1-dioxides  
 INVENTOR(S): Chiyomaru, Isao; Ikeda, Takuro; Takida, Kiyoshi  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 47020158 | B4   | 19720927 | JP 1971-10094   | 19710227 |

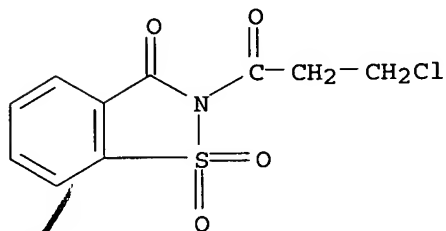
GI For diagram(s), see printed CA Issue.

AB The title compds. (I), antibacterial and antifungal for plants, were prepared by treating saccharin (II) with chloroformates. Thus, II was treated with ClCOEt in C<sub>6</sub>H<sub>6</sub> in the presence of pyridine to give 92.1 I (R = Et). I (R = Me; (CH<sub>2</sub>)<sub>2</sub>Cl, iso-Pr, Ph; p-MeC<sub>6</sub>H<sub>4</sub>) were similarly prepared

IT 37952-91-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 37952-91-3 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(3-chloro-1-oxopropyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



✓ L114 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1972:14533 CAPLUS

DOCUMENT NUMBER: 76:14533

TITLE: 2-Carbamoyl-1,2-benzisothiazolin-3-one 1,1-dioxides

INVENTOR(S): Mine, Seizo; Shioyama, Itaru

PATENT ASSIGNEE(S): Japan Agricultural Chemicals and Insecticides Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 6 pp.  
CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 46036613 | B4   | 19711027 | JP              | 19691203 |

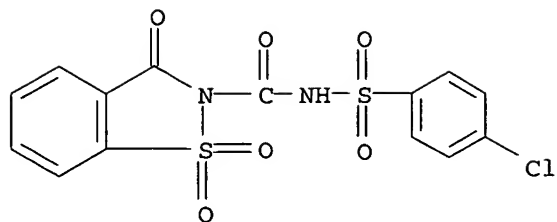
GI For diagram(s), see printed CA Issue.

AB I, useful as a fungicide for phytopathogenic fungi, was prepared Thus, 2-chlorocarbonylsaccharine was gradually added to a solution of PhCH<sub>2</sub>NH<sub>2</sub> in dioxane and the mixture stirred 2 hr to give 71% I (R<sub>1</sub> = PhCH<sub>2</sub>, R<sub>2</sub> = H). Similarly prepared were 65 more I.

IT 28946-22-7P 28946-23-8P 28946-24-9P  
35131-57-8P 35131-58-9P 35131-59-0P  
35131-60-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

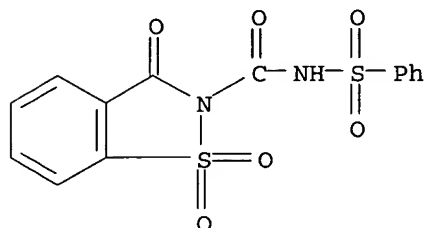
RN 28946-22-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-chlorophenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



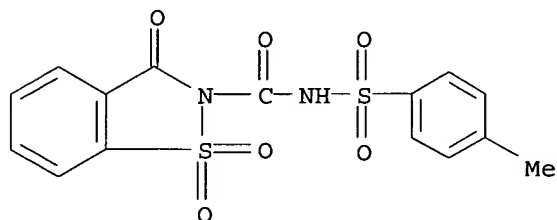
RN 28946-23-8 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N-(phenylsulfonyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



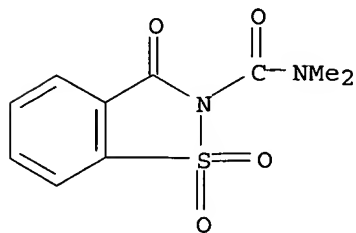
RN 28946-24-9 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-methylphenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



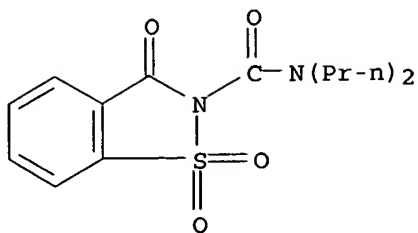
RN 35131-57-8 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-dimethyl-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)

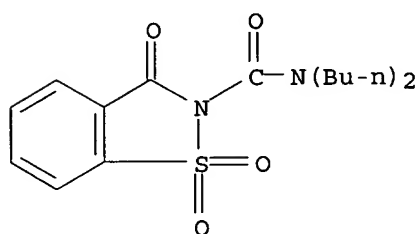


RN 35131-58-9 CAPLUS

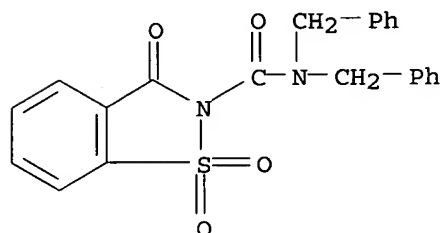
CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N,N-dipropyl-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 35131-59-0 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-dibutyl-3-oxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



RN 35131-60-3 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N,N-bis(phenylmethyl)-,  
 1,1-dioxide (9CI) (CA INDEX NAME)



L114 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1970:425448 CAPLUS  
 DOCUMENT NUMBER: 73:25448  
 TITLE: Fungicidal 2-(ar)alkylcarbamoylsaccharins  
 INVENTOR(S): Shioyama, Osamu; Mine, Seizo; Murata, Kikuzo  
 PATENT ASSIGNEE(S): Japan Agricultural Chemicals Co., Ltd.  
 SOURCE: Ger. Offen., 38 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 1953422 | A    | 19700514 | DE 1969-1953422 | 19691023 |
| DE 1953422 | B2   | 19740801 |                 |          |

|                        |    |          |                 |            |
|------------------------|----|----------|-----------------|------------|
| DE 1953422             | C3 | 19750327 |                 |            |
| JP 48040734            | B4 | 19731203 | JP 1968-77381   | 19681025   |
| GB 1278111             | A  | 19720614 | GB 1969-1278111 | 19691021   |
| US 3699228             | A  | 19721017 | US 1969-868236  | 19691021   |
| PRIORITY APPLN. INFO.: |    |          | JP 1968-77381   | A 19681025 |
|                        |    |          | JP 1969-71023   | A 19690909 |

GI For diagram(s), see printed CA Issue.

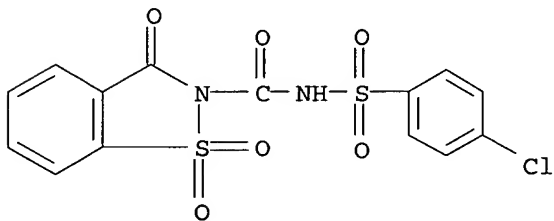
AB The fungicidal title compds. (I) were prepared in 34.8-97.0% yield either by reaction of the corresponding saccharin with RNCO in the presence of Et<sub>3</sub>N or pyridine or by reaction of the Na salt of saccharin and COCl<sub>2</sub> via the chlorocarbonyl derivative and subsequent reaction with the corresponding amines. Among the 68 compds. prepared were the following I (X, R, and R<sub>1</sub> given): O, Me, H; O, Ph, H; O, CH<sub>2</sub>Ph, H; O, CHMePh, H; O, CH<sub>2</sub>Ph, 6-Cl; O, Bu, H; O, Pr, H; O, CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me-p, H; O, CH<sub>2</sub>CH<sub>2</sub>Ph, H; O, C<sub>6</sub>H<sub>4</sub>Me-p, H; O, Me, 5-MeO; S, CH<sub>2</sub>Ph, H. Compns. of fungicides containing I were reported. I had fungicidal activities especially against *Piricularia oryzae*, *Cladosporium cucumerinum*, and *Colletotrichum langenarium*.

IT 28946-22-7P 28946-23-8P 28946-24-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

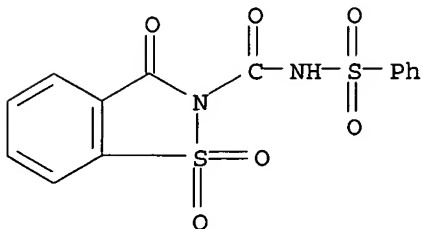
RN 28946-22-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-chlorophenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 28946-23-8 CAPLUS

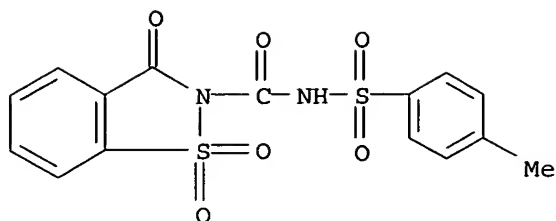
CN 1,2-Benzisothiazole-2(3H)-carboxamide, 3-oxo-N-(phenylsulfonyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 28946-24-9 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N-[(4-methylphenyl)sulfonyl]-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)





L114 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1962:41812 CAPLUS

DOCUMENT NUMBER: 56:41812

ORIGINAL REFERENCE NO.: 56:7937i,7938a-b

TITLE: Correlation of chemical structure and taste in the saccharin series

AUTHOR(S): Hamor, Glenn H.

CORPORATE SOURCE: Univ. of S. California, Los Angeles

SOURCE: Science (Washington, DC, United States) (1961), 134, 1416-17

CODEN: SCIEAS; ISSN: 0036-8075

DOCUMENT TYPE: Journal

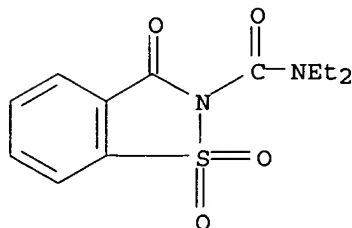
LANGUAGE: Unavailable

AB With approx. 80 saccharin derivs. substitution in the number 2 or 3 position gave tasteless compds. Replacement of the imide H by another chemical group gave, in almost every case, a tasteless compound Both sweet and bitter substances were made tasteless by substitution in the 2 position. Isomerization of the lactam to the lactim form may be necessary for sweet (and bitter) taste. Substitution in the benzene ring of saccharin with the electron-withdrawing nitro group gives a bitter substance. Substitution with an electron-donating group results in a sweet taste. Doubling the saccharin mol. results in a lack of taste. Many saccharin derivs., including saccharin itself, have a bitter taste or a bitter aftertaste. Resonance may play a part in taste.

IT 5443-42-5, 1,2-Benzisothiazoline-2-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide (taste of)

RN 5443-42-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



L114 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN

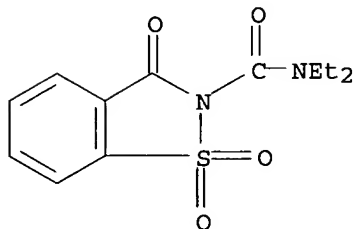
ACCESSION NUMBER: 1961:137433 CAPLUS

DOCUMENT NUMBER: 55:137433

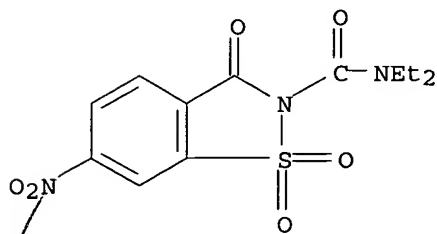
ORIGINAL REFERENCE NO.: 55:25918g-h

TITLE: Saccharin derivatives. IV. Synthesis of

2-(diethylcarbamoyl)- and 2-(diethylthiocarbamoyl)saccharin, and related compounds  
AUTHOR(S): Mehta, Satyendra J.; Hamor, Glenn H.  
CORPORATE SOURCE: Univ. of S. California, Los Angeles  
SOURCE: Journal of Pharmaceutical Sciences (1961), 50, 672-5  
CODEN: JPMSAE; ISSN: 0022-3549  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
OTHER SOURCE(S): CASREACT 55:137433  
AB cf. CA 54, 15362a. The following compds. were prepared by refluxing the appropriate compound with  $\text{CHCl}_3$  and  $\text{Et}_2\text{NCOC}_1$  and recrystg. the product from EtOH (m.p. and % yield given): saccharin derivs.: 2-(diethylcarbamoyl), 117-18°, 40; 2-(diethylthiocarbamoyl), 206-7°, 34; 2-(diethylcarbamoyl)-6-nitro, 172-3°, 73; and 2-(carbethoxy), 136°, 65; 1,2-benzisothiazole 1,1-dioxide derivs.: 3-diethylamino, 206-7°, 46.9; 3-diethylamino-6-nitro, 256-7° ( $\text{Me}_2\text{CO}$ ), 67; and 3-(dimethylamino), 273-4°, 9.  
IT 5443-42-5, 1,2-Benzisothiazoline-2-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide 108676-51-3, 1,2-Benzisothiazoline-2-carboxamide, N,N-diethyl-6-nitro-3-oxo-, 1,1-dioxide (preparation of)  
RN 5443-42-5 CAPLUS  
CN 1,2-Benzisothiazole-2(3H)-carboxamide, N,N-diethyl-3-oxo-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 108676-51-3 CAPLUS  
CN 2-Benzisothiazoline-2-carboxamide, N,N-diethyl-6-nitro-3-oxo-, 1,1-dioxide (6CI) (CA INDEX NAME)



L114 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1961:27961 CAPLUS  
DOCUMENT NUMBER: 55:27961  
ORIGINAL REFERENCE NO.: 55:5532b-f  
TITLE: Sulfamoyl derivatives of certain saccharins  
INVENTOR(S): Novello, Frederick C.

PATENT ASSIGNEE(S): Merck & Co., Inc.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

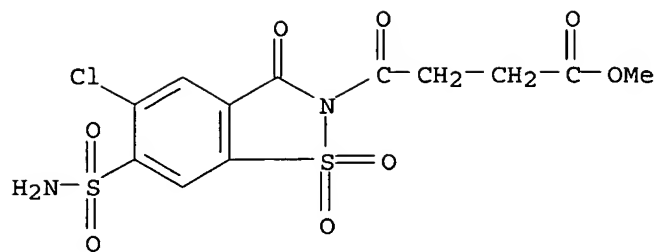
| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| US 2957883 |      | 19601025 | US              |      |
| DE 1165033 |      |          | DE              |      |
| FR 1326309 |      |          | FR              |      |
| GB 887711  |      |          | GB              |      |

AB A series of the title compds., useful as diuretics, was prepared via conventional reactions. Thus, 31.8 g. m-chlorotoluene was added dropwise to 165 ml. chlorosulfonic acid at 0°, the reaction mixture heated 3 hrs. at 150-60° and cooled, and the product precipitated over ice and added portion-wise to 150 ml. 28% NH4OH at 0°. This mixture was heated 2 hrs. at 100° and cooled and the 5-chloro-2,4-disulfamoyl-toluene, m. 256-7° (from aqueous EtOH), collected. Oxidation of this product with alkaline KMnO4 at 100° gave 5-chloro-2,4-disulfamoylbenzoic acid, decomposing 200° (from H2O), which was cyclodehydrated in H2SO4 at 25° to give 5-chloro-6-sulfamoylsaccharin (I), decomposing 273-5° (from 50% aqueous EtOH); di-Na salt of I was prepared from NaOEt in EtOH. Similar 5-substituted-6-sulfamoylsaccharins prepared from suitable m-substituted toluenes were (5-substituent given): fluoro, bromo, methyl, butyl, ethoxy, butoxy, and nitro compds. Reduction of the 5-nitro compound gave 5-amino-6-sulfamoylsaccharin. The isomeric 6-chloro-5-sulfamoylsaccharin was prepared from p-chlorotoluene via 4-chlorotoluene-2,5-disulfonyl chloride, 4-chloro-2,5-disulfamoyltoluene, and 4-chloro-2,5-disulfamoylbenzoic acid. Condensation of I with various compds. in the presence of KOEt in HCONMe2 gave derivs. of I. Substitution took place on the N atom (numbered 2) in the ring system (reactants and 2-substituents of 2-substituted-5-chloro-6-sulfamoylsaccharins given): (CH2Br)2, 2-bromoethyl (II); Br(CH2)3Br, 3-bromopropyl; n-C3H7Br, n-C3H7; CH2:CHCH2Br, allyl; PhCH2Br, PhCH2; PhCH2CH2Br, PhCH2CH2; n-C4H9Br, n-C4H9; phenylacetyl bromide, phenylacetyl; methyl succinoyl chloride, 3-carbomethoxypropionyl; and Et bromoacetate, 2-carbethoxymethyl (III). Alkaline hydrolysis of III gave 2-carboxymethyl-5-chloro-6-sulfamoylsaccharin. Reactions of II with alc. solns. of aqueous NaOH, NH3, n-C3H7NH2, and piperidine gave 2-(2-hydroxyethyl)-, 2-(2-aminoethyl), 2-(2-propylaminoethyl)-, and 2-(2-piperidinoethyl)-5-chloro-6-sulfamoylsaccharin, resp. Directions were given for the preparation of tablets.

IT 104095-24-1, 1,2-Benzisothiazoline-2-butyric acid, 5-chloro-γ,3-dioxo-6-sulfamoyl-, methyl ester, 1,1-dioxide (preparation of)

RN 104095-24-1 CAPLUS

CN 1,2-Benzisothiazoline-2-butyric acid, 5-chloro-γ,3-dioxo-6-sulfamoyl-, methyl ester, 1,1-dioxide (6CI) (CA INDEX NAME)



# Specific structures in application

Shiao 10/713174

(includes claim 10 + claim 11)  
12/29/2005

=> file registry

FILE 'REGISTRY' ENTERED AT 14:29:18 ON 29 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 DEC 2005 HIGHEST RN 870751-96-5

DICTIONARY FILE UPDATES: 28 DEC 2005 HIGHEST RN 870751-96-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d stat que L60

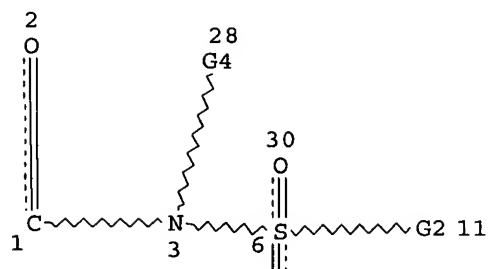
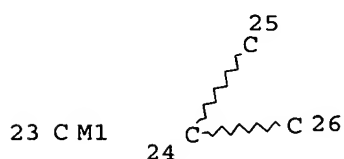
```
L2      118 SEA FILE=REGISTRY ABB=ON PLU=ON (7719-09-7/BI OR 929-06-6/BI
      OR 128-44-9/BI OR 25086-15-1/BI OR 81-07-2/BI OR 851778-65-9/BI
      OR 10025-78-2/BI OR 108-30-5/BI OR 108-55-4/BI OR 110-71-4/BI
      OR 111-19-3/BI OR 121-44-8/BI OR 147072-47-7/BI OR 157090-59-0/
      BI OR 23483-56-9/BI OR 3007-31-6/BI OR 335-05-7/BI OR 34310-29-
      7/BI OR 41643-17-8/BI OR 456-64-4/BI OR 6066-82-6/BI OR
      7087-68-5/BI OR 71310-21-9/BI OR 7440-21-3/BI OR 75-09-2/BI OR
      851778-52-4/BI OR 851778-53-5/BI OR 851778-54-6/BI OR 851778-55
      -7/BI OR 851778-58-0/BI OR 851778-59-1/BI OR 851778-60-4/BI OR
      851778-61-5/BI OR 851778-62-6/BI OR 851778-63-7/BI OR 851778-69
      -3/BI OR 852233-93-3/BI OR 852233-95-5/BI OR 868-77-9/BI OR
      100-42-5/BI OR 104-15-4/BI OR 118216-33-4/BI OR 124-22-1/BI OR
      1333-07-9/BI OR 13472-08-7/BI OR 138-41-0/BI OR 1484-13-5/BI
      OR 149-73-5/BI OR 18358-13-9/BI OR 2016-57-1/BI OR 22535-49-5/B
      I OR 22808-73-7/BI OR 24937-79-9/BI OR 25067-59-8/BI OR
      25190-89-0/BI OR 2530-85-0/BI OR 25322-68-3/BI OR 26249-38-7/BI
      OR 2680-03-7/BI OR 27072-45-3/BI OR 27236-80-2/BI OR 31049-18-
      0/BI OR 38460-95-6/BI OR 4420-74-0/BI OR 51178-68-8/BI OR
      54773-31-8/BI OR 56-87-1/BI OR 56992-87-1/BI OR 6155-57-3/BI
      OR 63-74-1/BI OR 64114-51-8/BI OR 67584-59-2/BI OR 68-12-2/BI
```

OR 74-89-5/BI OR 7440-32-6/BI OR 7440-44-0/BI OR 7440-57-5/BI  
OR 75-44-5/BI OR 75-76-3/BI OR 7534-94-3/BI OR 76-32-4/BI OR  
760-93-0/BI OR 80-62-6/BI OR 814-68-6/BI OR 826-62-0/BI OR  
851778-56-8/BI OR 851778-57-9/BI OR 851778-64-8/BI OR 851778-66  
-0/BI OR 851778-67-1/BI OR 851778-68-2/BI OR 851778-70-6/BI OR  
851778-71-7/BI OR 851934-33-3/BI OR 851934-34-4/BI OR 851934-43  
-5/BI OR 851934-44-6/BI OR 851934-46-8/BI OR 851934-47-9/BI OR  
851934-48-0/BI OR 851934-76-4/BI OR 852233-89-7/BI OR 852233-94  
-4/BI OR 852233-96-6/BI OR 859232-48-7/BI OR 859232-49-8/BI OR  
859500-21-3/BI OR 860032-10-6/BI OR 860032-11-7/BI OR 860032-12  
-8/BI OR 860032-13-9/BI OR 860032-14-0/BI OR 860032-15-1/BI OR  
872-50-4/BI OR 9003-53-6/BI OR 9011-14-7/BI OR 92-84-2/BI OR  
999-61-1/BI)

STR

L3

C 27



Page 1-A

Ak 4

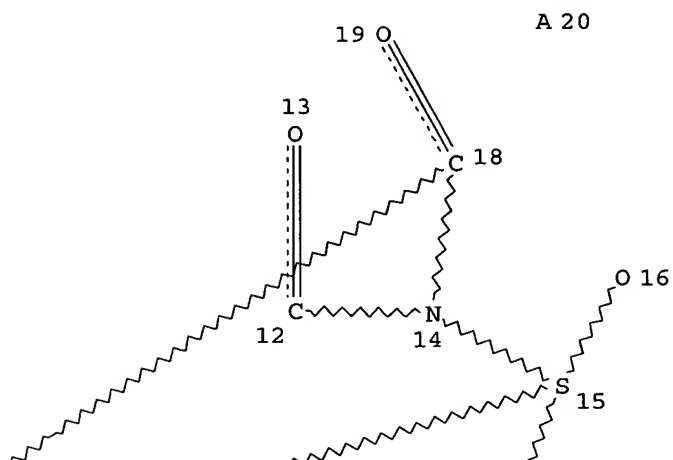
Cy 5

Page 1-B

||:  
O  
29

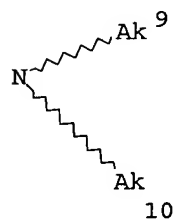
G3 22

8

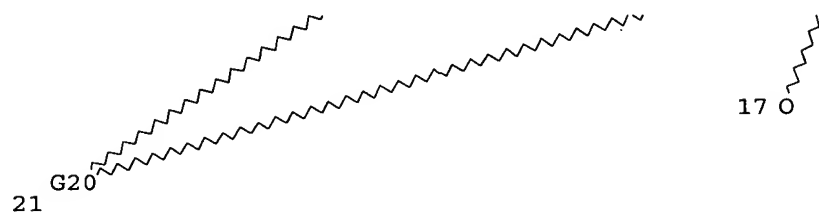


Page 2-A

N 7



Page 2-B



Page 3-A

VAR G2=4/5/7/8

VAR G3=1/12

VAR G4=5/23/24/27

REP G20=(1-5) 20-15 20-18

## NODE ATTRIBUTES:

```

HCOUNT  IS M1      AT  23
NSPEC     IS C       AT   1
NSPEC     IS C       AT   2
NSPEC     IS C       AT   3
NSPEC     IS C       AT   4
NSPEC     IS C       AT   5
NSPEC     IS C       AT   6
NSPEC     IS R       AT   7
NSPEC     IS C       AT   8
NSPEC     IS C       AT   9
NSPEC     IS C       AT  10
NSPEC     IS C       AT  11
NSPEC     IS C       AT  12
NSPEC     IS C       AT  13
NSPEC     IS R       AT  14
NSPEC     IS R       AT  15
NSPEC     IS C       AT  16
NSPEC     IS C       AT  17
NSPEC     IS R       AT  18
NSPEC     IS C       AT  19
NSPEC     IS R       AT  20
NSPEC     IS R       AT  21
NSPEC     IS C       AT  22
NSPEC     IS C       AT  23
NSPEC     IS C       AT  24
NSPEC     IS C       AT  25
NSPEC     IS C       AT  26
NSPEC     IS C       AT  27
NSPEC     IS C       AT  28
NSPEC     IS C       AT  29
NSPEC     IS C       AT  30
CONNECT   IS E1  RC AT  16
CONNECT   IS E1  RC AT  17
CONNECT   IS E4  RC AT  27
DEFAULT   MLEVEL IS ATOM
MLEVEL    IS CLASS AT   1  2  3  4  6  8  9 10 12 13 16 17 19 23 24 25 26
          27 29 30
GGCAT     IS UNS   AT   5
DEFAULT   ECLEVEL IS LIMITED

```

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 30

## STEREO ATTRIBUTES: NONE

```

L4          9125 SEA FILE=REGISTRY SSS FUL L3
L7          STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.  
L11 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.  
L13 STR



X 21

22  
Ak  
:  
:  
:  
O  
23

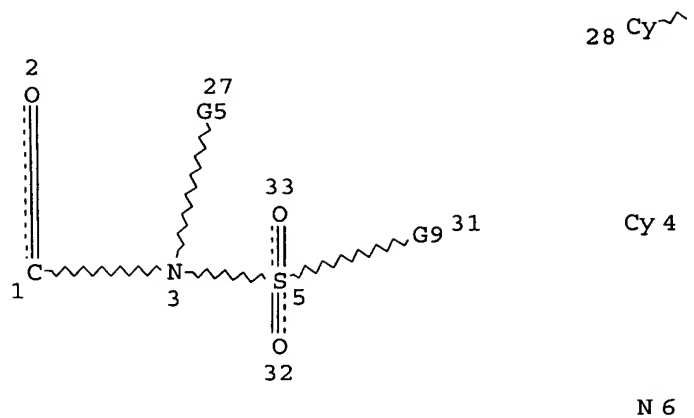
26  
G4  
~~~~~  
Ak  
25  
Ak 24

Page 1-A

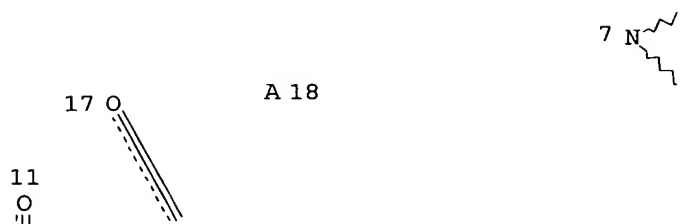
Ak 29

~~~~~G8 30

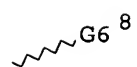
Page 1-B



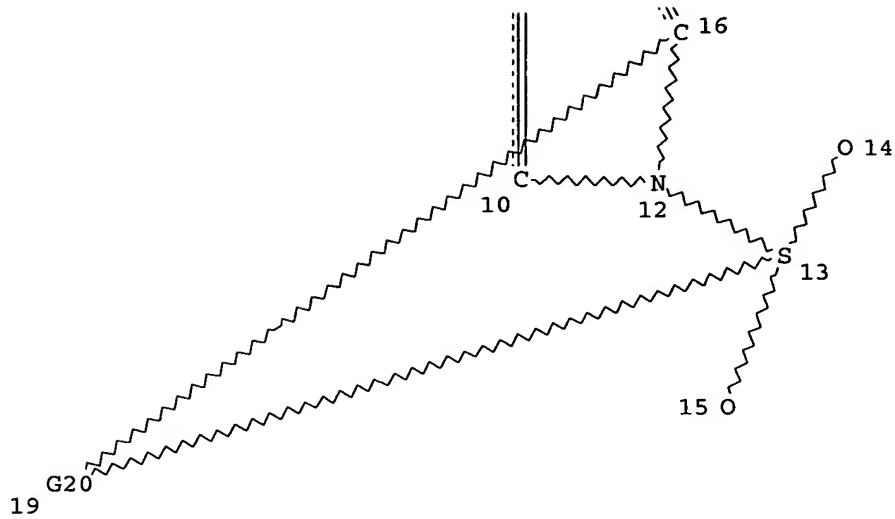
G3 20



Page 2-A



Page 2-B



Page 3-A

VAR G3=1/10

VAR G4=21/23

VAR G5=4/24/25

VAR G6=24/25

VAR G8=21/23/29

VAR G9=4/6/7/24/25/28

REP G20=(1-5) 18-13 18-16

NODE ATTRIBUTES:

|       |      |    |    |
|-------|------|----|----|
| NSPEC | IS C | AT | 1  |
| NSPEC | IS C | AT | 2  |
| NSPEC | IS C | AT | 3  |
| NSPEC | IS C | AT | 4  |
| NSPEC | IS C | AT | 5  |
| NSPEC | IS R | AT | 6  |
| NSPEC | IS C | AT | 7  |
| NSPEC | IS C | AT | 8  |
| NSPEC | IS C | AT | 9  |
| NSPEC | IS C | AT | 10 |
| NSPEC | IS C | AT | 11 |
| NSPEC | IS R | AT | 12 |
| NSPEC | IS R | AT | 13 |
| NSPEC | IS C | AT | 14 |
| NSPEC | IS C | AT | 15 |
| NSPEC | IS R | AT | 16 |
| NSPEC | IS C | AT | 17 |
| NSPEC | IS R | AT | 18 |
| NSPEC | IS R | AT | 19 |
| NSPEC | IS C | AT | 20 |
| NSPEC | IS C | AT | 21 |
| NSPEC | IS C | AT | 22 |
| NSPEC | IS C | AT | 23 |
| NSPEC | IS C | AT | 24 |
| NSPEC | IS C | AT | 25 |
| NSPEC | IS C | AT | 26 |
| NSPEC | IS C | AT | 27 |
| NSPEC | IS C | AT | 28 |
| NSPEC | IS C | AT | 29 |
| NSPEC | IS C | AT | 30 |

```

NSPEC   IS C      AT 31
NSPEC   IS C      AT 32
NSPEC   IS C      AT 33
CONNECT IS E1    RC AT 4
CONNECT IS E1    RC AT 14
CONNECT IS E1    RC AT 15
CONNECT IS E1    RC AT 24
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS AT 1 2 3 5 7 10 11 14 15 17 21 22 23 24 25 29 32
33
GGCAT   IS UNS    AT 4
DEFAULT ECLEVEL IS LIMITED

```

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

```

L15      2986 SEA FILE=REGISTRY SUB=L4 SSS FUL L13
L19      1085 SEA FILE=REGISTRY SUB=L15 SSS FUL L7
L21      754 SEA FILE=REGISTRY SUB=L15 SSS FUL L11
L24      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L26      691 SEA FILE=REGISTRY SUB=L19 SSS FUL L24
L28      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L30      372 SEA FILE=REGISTRY SUB=L21 SSS FUL L28
L34      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L36      283 SEA FILE=REGISTRY SUB=L30 SSS FUL L34
L38      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L40      432 SEA FILE=REGISTRY SUB=L26 SSS FUL L38
L44      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L46      210 SEA FILE=REGISTRY SUB=L36 SSS FUL L44
L47      STR

```

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```

L49      269 SEA FILE=REGISTRY SUB=L40 SSS FUL L47
L50      315 SEA FILE=REGISTRY ABB=ON PLU=ON L49 OR L46
L60      16 SEA FILE=REGISTRY ABB=ON PLU=ON L50 AND L49

```

=> file caplus

FILE 'CAPLUS' ENTERED AT 14:29:33 ON 29 DEC 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 29 Dec 2005 VOL 144 ISS 1

FILE LAST UPDATED: 28 Dec 2005 (20051228/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

=> d stat que nos L62

L2 118 SEA FILE=REGISTRY ABB=ON PLU=ON (7719-09-7/BI OR 929-06-6/BI OR 128-44-9/BI OR 25086-15-1/BI OR 81-07-2/BI OR 851778-65-9/BI OR 10025-78-2/BI OR 108-30-5/BI OR 108-55-4/BI OR 110-71-4/BI OR 111-19-3/BI OR 121-44-8/BI OR 147072-47-7/BI OR 157090-59-0/BI OR 23483-56-9/BI OR 3007-31-6/BI OR 335-05-7/BI OR 34310-29-7/BI OR 41643-17-8/BI OR 456-64-4/BI OR 6066-82-6/BI OR 7087-68-5/BI OR 71310-21-9/BI OR 7440-21-3/BI OR 75-09-2/BI OR 851778-52-4/BI OR 851778-53-5/BI OR 851778-54-6/BI OR 851778-55-7/BI OR 851778-58-0/BI OR 851778-59-1/BI OR 851778-60-4/BI OR 851778-61-5/BI OR 851778-62-6/BI OR 851778-63-7/BI OR 851778-69-3/BI OR 852233-93-3/BI OR 852233-95-5/BI OR 868-77-9/BI OR 100-42-5/BI OR 104-15-4/BI OR 118216-33-4/BI OR 124-22-1/BI OR 1333-07-9/BI OR 13472-08-7/BI OR 138-41-0/BI OR 1484-13-5/BI OR 149-73-5/BI OR 18358-13-9/BI OR 2016-57-1/BI OR 22535-49-5/BI OR 22808-73-7/BI OR 24937-79-9/BI OR 25067-59-8/BI OR 25190-89-0/BI OR 2530-85-0/BI OR 25322-68-3/BI OR 26249-38-7/BI OR 2680-03-7/BI OR 27072-45-3/BI OR 27236-80-2/BI OR 31049-18-0/BI OR 38460-95-6/BI OR 4420-74-0/BI OR 51178-68-8/BI OR 54773-31-8/BI OR 56-87-1/BI OR 56992-87-1/BI OR 6155-57-3/BI OR 63-74-1/BI OR 64114-51-8/BI OR 67584-59-2/BI OR 68-12-2/BI OR 74-89-5/BI OR 7440-32-6/BI OR 7440-44-0/BI OR 7440-57-5/BI OR 75-44-5/BI OR 75-76-3/BI OR 7534-94-3/BI OR 76-32-4/BI OR 760-93-0/BI OR 80-62-6/BI OR 814-68-6/BI OR 826-62-0/BI OR 851778-56-8/BI OR 851778-57-9/BI OR 851778-64-8/BI OR 851778-66-0/BI OR 851778-67-1/BI OR 851778-68-2/BI OR 851778-70-6/BI OR 851778-71-7/BI OR 851934-33-3/BI OR 851934-34-4/BI OR 851934-43-5/BI OR 851934-44-6/BI OR 851934-46-8/BI OR 851934-47-9/BI OR 851934-48-0/BI OR 851934-76-4/BI OR 852233-89-7/BI OR 852233-94-4/BI OR 852233-96-6/BI OR 859232-48-7/BI OR 859232-49-8/BI OR 859500-21-3/BI OR 860032-10-6/BI OR 860032-11-7/BI OR 860032-12

-8/BI OR 860032-13-9/BI OR 860032-14-0/BI OR 860032-15-1/BI OR  
872-50-4/BI OR 9003-53-6/BI OR 9011-14-7/BI OR 92-84-2/BI OR  
999-61-1/BI)

L3 STR  
L4 9125 SEA FILE=REGISTRY SSS FUL L3  
L7 STR  
L11 STR  
L13 STR  
L15 2986 SEA FILE=REGISTRY SUB=L4 SSS FUL L13  
L19 1085 SEA FILE=REGISTRY SUB=L15 SSS FUL L7  
L21 754 SEA FILE=REGISTRY SUB=L15 SSS FUL L11  
L24 STR  
L26 691 SEA FILE=REGISTRY SUB=L19 SSS FUL L24  
L28 STR  
L30 372 SEA FILE=REGISTRY SUB=L21 SSS FUL L28  
L34 STR  
L36 283 SEA FILE=REGISTRY SUB=L30 SSS FUL L34  
L38 STR  
L40 432 SEA FILE=REGISTRY SUB=L26 SSS FUL L38  
L44 STR  
L46 210 SEA FILE=REGISTRY SUB=L36 SSS FUL L44  
L47 STR  
L49 269 SEA FILE=REGISTRY SUB=L40 SSS FUL L47  
L50 315 SEA FILE=REGISTRY ABB=ON PLU=ON L49 OR L46  
L60 16 SEA FILE=REGISTRY ABB=ON PLU=ON L50 AND L2  
~~L62 7 SEA FILE=CAPLUS ABB=ON PLU=ON L60~~

=> file uspatfull

FILE 'USPATFULL' ENTERED AT 14:29:58 ON 29 DEC 2005

CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 29 Dec 2005 (20051229/PD)

FILE LAST UPDATED: 29 Dec 2005 (20051229/ED)

HIGHEST GRANTED PATENT NUMBER: US6981281

HIGHEST APPLICATION PUBLICATION NUMBER: US2005289677

CA INDEXING IS CURRENT THROUGH 29 Dec 2005 (20051229/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 29 Dec 2005 (20051229/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2005

```
>>> USPAT2 is now available.  USPATFULL contains full text of the  <<<
>>> original, i.e., the earliest published granted patents or  <<<
>>> applications.  USPAT2 contains full text of the latest US  <<<
>>> publications, starting in 2001, for the inventions covered in  <<<
>>> USPATFULL.  A USPATFULL record contains not only the original  <<<
>>> published document but also a list of any subsequent  <<<
>>> publications.  The publication number, patent kind code, and  <<<
>>> publication date for all the US publications for an invention  <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL  <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc.  <<<
```

```
>>> USPATFULL and USPAT2 can be accessed and searched together  <<<
>>> through the new cluster USPATALL.  Type FILE USPATALL to  <<<
>>> enter this cluster.  <<<
>>>  <<<
>>> Use USPATALL when searching terms such as patent assignees,  <<<
>>> classifications, or claims, that may potentially change from  <<<
```

&gt;&gt;&gt; the earliest to the latest publication.

&lt;&lt;&lt;

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

&gt; d stat que nos L63

L2 118 SEA FILE=REGISTRY ABB=ON PLU=ON (7719-09-7/BI OR 929-06-6/BI  
OR 128-44-9/BI OR 25086-15-1/BI OR 81-07-2/BI OR 851778-65-9/BI  
OR 10025-78-2/BI OR 108-30-5/BI OR 108-55-4/BI OR 110-71-4/BI  
OR 111-19-3/BI OR 121-44-8/BI OR 147072-47-7/BI OR 157090-59-0/  
BI OR 23483-56-9/BI OR 3007-31-6/BI OR 335-05-7/BI OR 34310-29-  
7/BI OR 41643-17-8/BI OR 456-64-4/BI OR 6066-82-6/BI OR  
7087-68-5/BI OR 71310-21-9/BI OR 7440-21-3/BI OR 75-09-2/BI OR  
851778-52-4/BI OR 851778-53-5/BI OR 851778-54-6/BI OR 851778-55  
-7/BI OR 851778-58-0/BI OR 851778-59-1/BI OR 851778-60-4/BI OR  
851778-61-5/BI OR 851778-62-6/BI OR 851778-63-7/BI OR 851778-69  
-3/BI OR 852233-93-3/BI OR 852233-95-5/BI OR 868-77-9/BI OR  
100-42-5/BI OR 104-15-4/BI OR 118216-33-4/BI OR 124-22-1/BI OR  
1333-07-9/BI OR 13472-08-7/BI OR 138-41-0/BI OR 1484-13-5/BI  
OR 149-73-5/BI OR 18358-13-9/BI OR 2016-57-1/BI OR 22535-49-5/B  
I OR 22808-73-7/BI OR 24937-79-9/BI OR 25067-59-8/BI OR  
25190-89-0/BI OR 2530-85-0/BI OR 25322-68-3/BI OR 26249-38-7/BI  
OR 2680-03-7/BI OR 27072-45-3/BI OR 27236-80-2/BI OR 31049-18-  
0/BI OR 38460-95-6/BI OR 4420-74-0/BI OR 51178-68-8/BI OR  
54773-31-8/BI OR 56-87-1/BI OR 56992-87-1/BI OR 6155-57-3/BI  
OR 63-74-1/BI OR 64114-51-8/BI OR 67584-59-2/BI OR 68-12-2/BI  
OR 74-89-5/BI OR 7440-32-6/BI OR 7440-44-0/BI OR 7440-57-5/BI  
OR 75-44-5/BI OR 75-76-3/BI OR 7534-94-3/BI OR 76-32-4/BI OR  
760-93-0/BI OR 80-62-6/BI OR 814-68-6/BI OR 826-62-0/BI OR  
851778-56-8/BI OR 851778-57-9/BI OR 851778-64-8/BI OR 851778-66  
-0/BI OR 851778-67-1/BI OR 851778-68-2/BI OR 851778-70-6/BI OR  
851778-71-7/BI OR 851934-33-3/BI OR 851934-34-4/BI OR 851934-43  
-5/BI OR 851934-44-6/BI OR 851934-46-8/BI OR 851934-47-9/BI OR  
851934-48-0/BI OR 851934-76-4/BI OR 852233-89-7/BI OR 852233-94  
-4/BI OR 852233-96-6/BI OR 859232-48-7/BI OR 859232-49-8/BI OR  
859500-21-3/BI OR 860032-10-6/BI OR 860032-11-7/BI OR 860032-12  
-8/BI OR 860032-13-9/BI OR 860032-14-0/BI OR 860032-15-1/BI OR  
872-50-4/BI OR 9003-53-6/BI OR 9011-14-7/BI OR 92-84-2/BI OR  
999-61-1/BI)

L3 STR

L4 9125 SEA FILE=REGISTRY SSS FUL L3

L7 STR

L11 STR

L13 STR

L15 2986 SEA FILE=REGISTRY SUB=L4 SSS FUL L13

L19 1085 SEA FILE=REGISTRY SUB=L15 SSS FUL L7

L21 754 SEA FILE=REGISTRY SUB=L15 SSS FUL L11

L24 STR

L26 691 SEA FILE=REGISTRY SUB=L19 SSS FUL L24

L28 STR

L30 372 SEA FILE=REGISTRY SUB=L21 SSS FUL L28

L34 STR

L36 283 SEA FILE=REGISTRY SUB=L30 SSS FUL L34

L38 STR

L40 432 SEA FILE=REGISTRY SUB=L26 SSS FUL L38

L44 STR

L46 210 SEA FILE=REGISTRY SUB=L36 SSS FUL L44

L47 STR

L49 269 SEA FILE=REGISTRY SUB=L40 SSS FUL L47

L50 315 SEA FILE=REGISTRY ABB=ON PLU=ON L49 OR L46  
 L60 16 SEA FILE=REGISTRY ABB=ON PLU=ON L50 AND L2  
**L63 3 SEA FILE=USPATFULL ABB=ON PLU=ON L60**

=> **dup rem L62 L63**

FILE 'CAPLUS' ENTERED AT 14:30:33 ON 29 DEC 2005  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 14:30:33 ON 29 DEC 2005  
 CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)  
 PROCESSING COMPLETED FOR L62  
 PROCESSING COMPLETED FOR L63

**L65 8 ~~DUP REM L62 L63~~ (2 DUPLICATES REMOVED)**  
**ANSWERS (1-7) FROM FILE CAPLUS**  
**ANSWER '8' FROM FILE USPATFULL**

=> d ibib abs hitstr L65 1-8

L65 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1  
 ACCESSION NUMBER: 2005:453738 CAPLUS  
 DOCUMENT NUMBER: 142:478402  
 TITLE: N-sulfonylaminocarbonyl containing compounds  
 INVENTOR(S): Benson, Karl E.; David, Moses M.; Kipke, Cary A.;  
 Lakshmi, Brinda B.; Leir, Charles M.; Moore, George G.  
 I.; Shah, Rahul R.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S.  
 Ser. No. 713,174.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.                                                                                                                                                                                                                                                                                                                                                                                                           | KIND | DATE     | APPLICATION NO. | DATE     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| US 2005112672                                                                                                                                                                                                                                                                                                                                                                                                        | A1   | 20050526 | US 2004-987522  | 20041112 |
| US 2005107615                                                                                                                                                                                                                                                                                                                                                                                                        | A1   | 20050519 | US 2003-713174  | 20031114 |
| WO 2005064349                                                                                                                                                                                                                                                                                                                                                                                                        | A2   | 20050714 | WO 2004-US42455 | 20041217 |
| WO 2005064349                                                                                                                                                                                                                                                                                                                                                                                                        | A3   | 20051110 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,<br>NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,<br>TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM |      |          |                 |          |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG                                                                                                                   |      |          |                 |          |
| WO 2005066092                                                                                                                                                                                                                                                                                                                                                                                                        | A2   | 20050721 | WO 2004-US42382 | 20041217 |
| WO 2005066092                                                                                                                                                                                                                                                                                                                                                                                                        | A3   | 20051013 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,                                                                                                                                                                                                             |      |          |                 |          |



LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

WO 2005075973 A2 20050818 WO 2004-US42662 20041217  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-713174 A2 20031114  
 US 2003-533169P P 20031230  
 US 2004-987075 A 20041112  
 US 2004-987522 A 20041112

OTHER SOURCE(S): MARPAT 142:478402

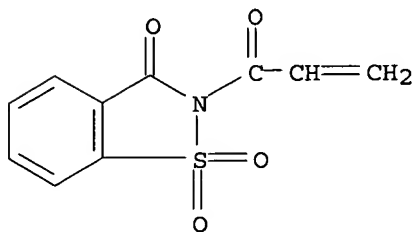
AB Compds. having two reactive functional groups are described that can be used to provide a connector group between a substrate and an amine-containing material. The first reactive functional group can be used to provide attachment to a surface of a substrate. The second reactive functional group is a N-sulfonylaminocarbonyl group that can be reacted with an amine-containing material, particularly a primary aliphatic amine, to form a carbonylimino-containing connector group. The invention also provides articles and methods for immobilizing amine-containing materials to a substrate.

IT 41643-17-8P 851778-58-0P 851778-59-1P  
 851778-60-4P 851778-61-5P 851778-62-6P  
 851778-63-7P 851778-65-9P 851778-69-3P  
 852233-89-7P 852233-93-3P 852233-94-4P  
 852233-95-5P 852233-96-6P

RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)  
 (N-sulfonylaminocarbonyl containing compds.)

RN 41643-17-8 CAPLUS

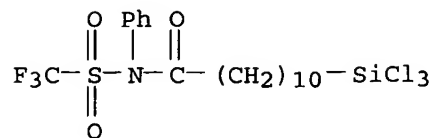
CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
 (CA INDEX NAME)



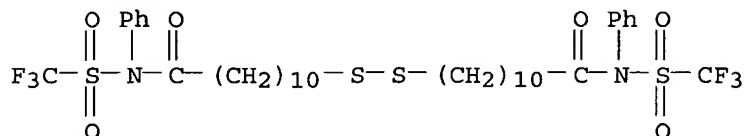
RN 851778-58-0 CAPLUS

CN Undecanamide, N-phenyl-11-(trichlorosilyl)-N-[(trifluoromethyl)sulfonyl]-

(9CI) (CA INDEX NAME)



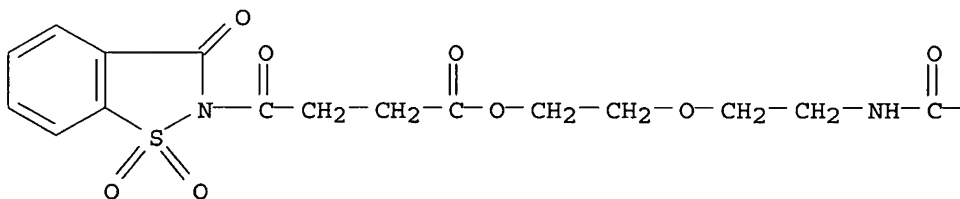
RN 851778-59-1 CAPLUS

CN Undecanamide, 11,11'-dithiobis [N-phenyl-N-[(trifluoromethyl)sulfonyl]-  
(9CI) (CA INDEX NAME)

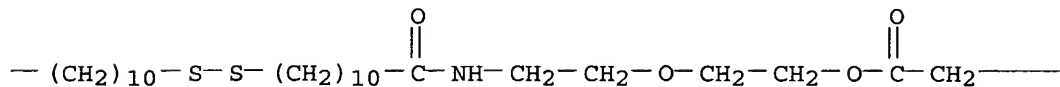
RN 851778-60-4 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-butanoic acid,  $\gamma$ ,3-dioxo-,  
7,30-dioxo-3,34-dioxo-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester, 1,1,1',1'-tetraoxide (9CI) (CA INDEX NAME)

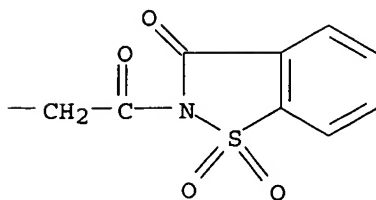
PAGE 1-A



PAGE 1-B



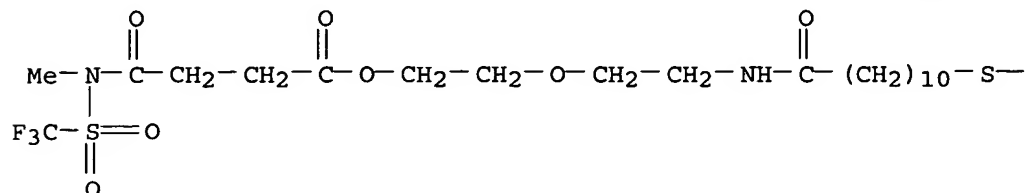
PAGE 1-C



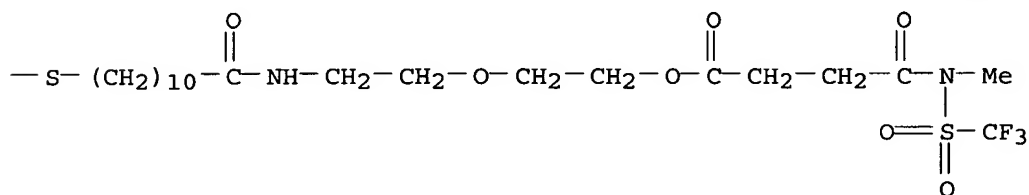
RN 851778-61-5 CAPLUS

CN Butanoic acid, 4-[methyl[(trifluoromethyl)sulfonyl]amino]-4-oxo-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester (9CI) (CA INDEX NAME)

PAGE 1-A



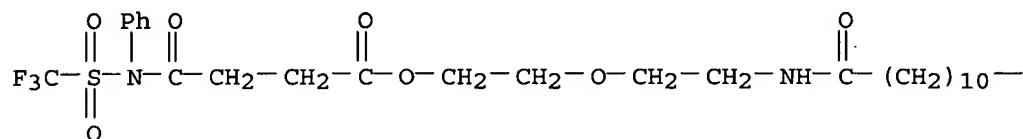
PAGE 1-B



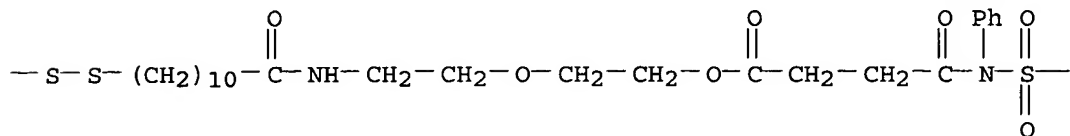
RN 851778-62-6 CAPLUS

CN Butanoic acid, 4-oxo-4-[phenyl[(trifluoromethyl)sulfonyl]amino]-,  
7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

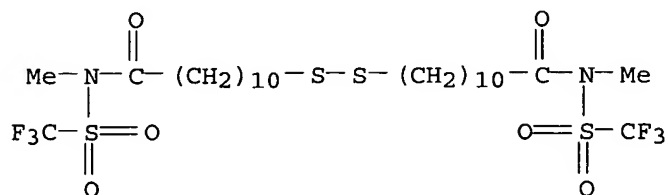


PAGE 1-C

-CF<sub>3</sub>

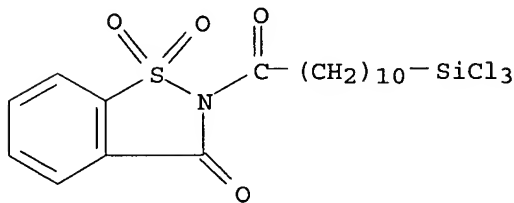
RN 851778-63-7 CAPLUS

CN Undecanamide, 11,11'-dithiobis[N-methyl-N-[(trifluoromethyl)sulfonyl]-  
(9CI) (CA INDEX NAME)



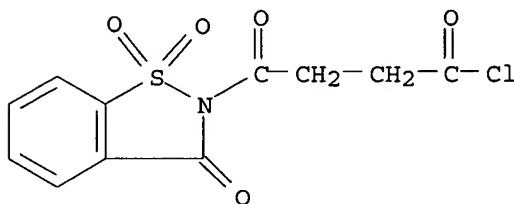
RN 851778-65-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[1-oxo-11-(trichlorosilyl)undecyl]-,  
1,1-dioxide (9CI) (CA INDEX NAME)



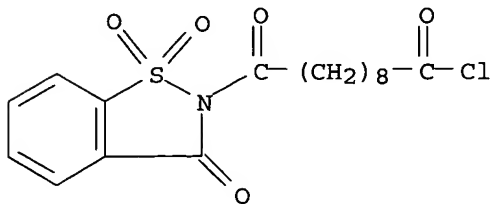
RN 851778-69-3 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-butanoyl chloride, γ,3-dioxo-, 1,1-dioxide  
(9CI) (CA INDEX NAME)



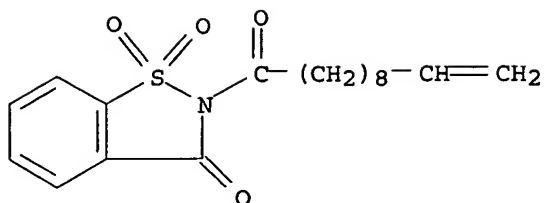
RN 852233-89-7 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-decanoyl chloride, γ,3-dioxo-, 1,1-dioxide  
(9CI) (CA INDEX NAME)



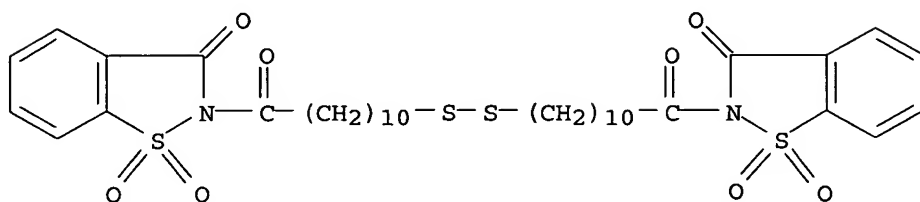
RN 852233-93-3 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-10-undecenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



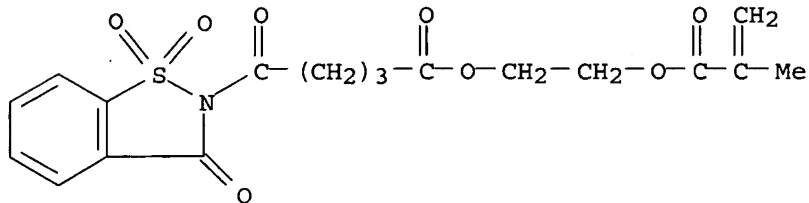
RN 852233-94-4 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2,2'-[dithiobis(1-oxo-11,1-undecanediyl)]bis-, 1,1,1',1'-tetraoxide (9CI) (CA INDEX NAME)



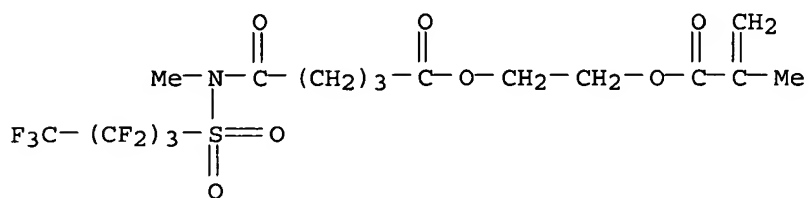
RN 852233-95-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 852233-96-6 CAPLUS

CN Pentanoic acid, 5-[methyl[(nonafluorobutyl)sulfonyl]amino]-5-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester (9CI) (CA INDEX NAME)



L65 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2005:431463 CAPLUS

DOCUMENT NUMBER: 142:478409

TITLE: N-sulfonylaminocarbonyl containing compounds

INVENTOR(S): Benson, Karl E.; David, Moses M.; Kipke, Cary A.;

PATENT ASSIGNEE(S): Lakshmi, Brinda B.; Leir, Charles M.; Moore, George G.; Shah, Rahul  
 SOURCE: 3M Innovative Properties Company, USA  
 U.S. Pat. Appl. Publ., 37 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2005107615 | A1   | 20050519 | US 2003-713174  | 20031114 |
| US 2005112672 | A1   | 20050526 | US 2004-987522  | 20041112 |
| WO 2005049590 | A2   | 20050602 | WO 2004-US37965 | 20041112 |
| WO 2005049590 | A3   | 20050825 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-713174 A2 20031114  
 US 2003-533169P P 20031230

OTHER SOURCE(S): MARPAT 142:478409

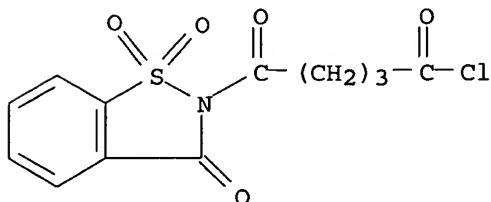
AB Comps. having two reactive functional groups are described that can be used to provide a connector group between a substrate and an amine-containing material. The first reactive functional group can be used to provide attachment to a surface of a substrate. The second reactive functional group is a N-sulfonylaminocarbonyl group that can be reacted with an amine-containing material, particularly a primary aliphatic amine, to form a carbonylimino-containing connector group. The invention also provides articles and methods for immobilizing amine-containing materials to a substrate.

IT 851778-67-1 851778-68-2 851778-69-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (N-sulfonylaminocarbonyl containing comps.)

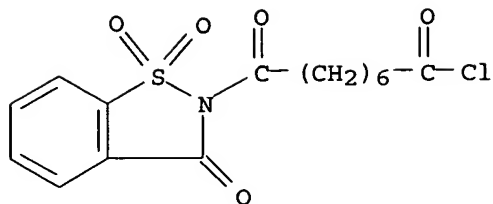
RN 851778-67-1 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-pentanoyl chloride,  $\delta$ ,3-dioxo-,  
 1,1-dioxide (9CI) (CA INDEX NAME)

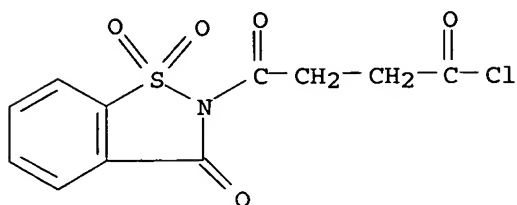


RN 851778-68-2 CAPLUS

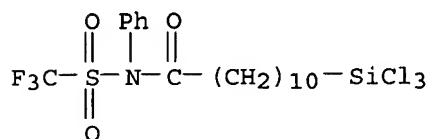
CN 1,2-Benzisothiazole-2(3H)-octanoyl chloride,  $\eta$ ,3-dioxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



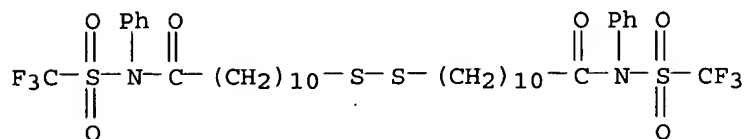
RN 851778-69-3 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-butanoyl chloride,  $\gamma$ ,3-dioxo-, 1,1-dioxide  
 (9CI) (CA INDEX NAME)



IT 851778-58-0P 851778-59-1P 851778-60-4P  
 851778-61-5P 851778-62-6P 851778-63-7P  
 851778-65-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (N-sulfonylamino-carbonyl containing compds.)  
 RN 851778-58-0 CAPLUS  
 CN Undecanamide, N-phenyl-11-(trichlorosilyl)-N-[(trifluoromethyl)sulfonyl]-  
 (9CI) (CA INDEX NAME)

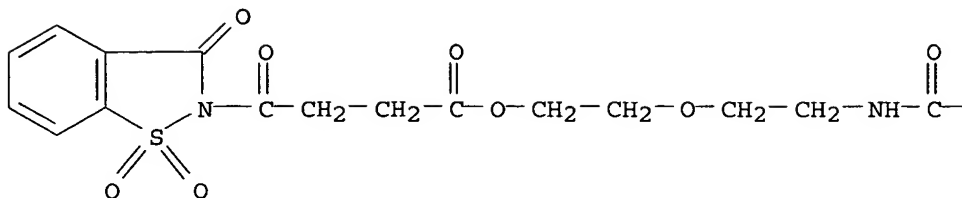


RN 851778-59-1 CAPLUS  
 CN Undecanamide, 11,11'-dithiobis[N-phenyl-N-[(trifluoromethyl)sulfonyl]-  
 (9CI) (CA INDEX NAME)

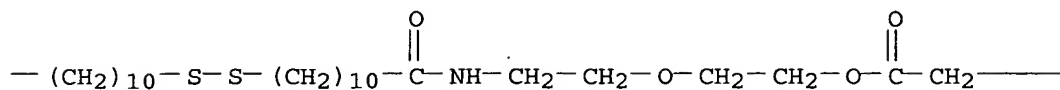


RN 851778-60-4 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-butanoic acid,  $\gamma$ ,3-dioxo-,  
 7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
 ester, 1,1,1',1'-tetraoxide (9CI) (CA INDEX NAME)

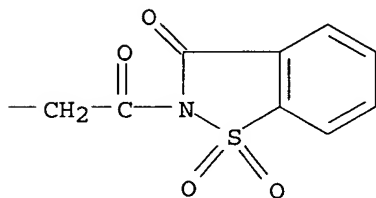
PAGE 1-A



PAGE 1-B

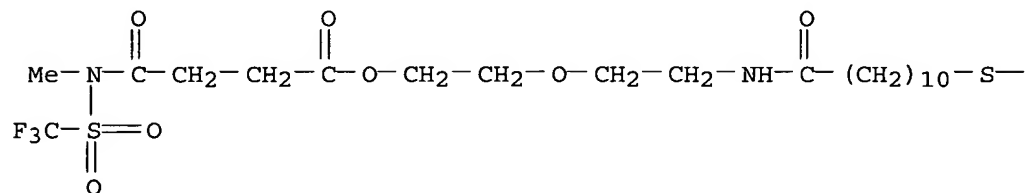


PAGE 1-C

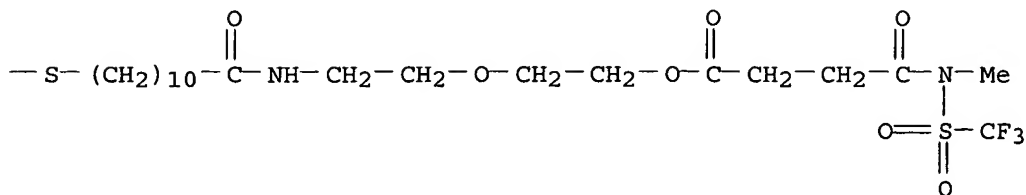


RN 851778-61-5 CAPLUS  
 CN Butanoic acid, 4-[methyl[(trifluoromethyl)sulfonyl]amino]-4-oxo-,  
 7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazahexatriacontane-1,36-diyl  
 ester (9CI) (CA INDEX NAME)

PAGE 1-A



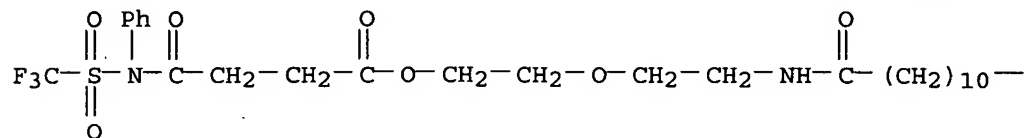
PAGE 1-B



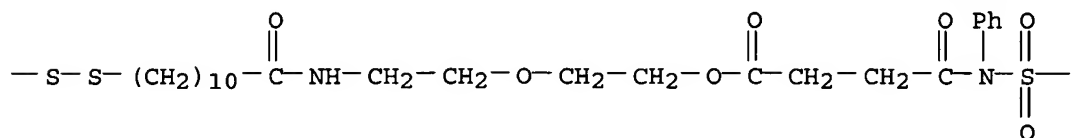


RN 851778-62-6 CAPLUS  
 CN Butanoic acid, 4-oxo-4-[phenyl[(trifluoromethyl)sulfonyl]amino]-, 7,30-dioxo-3,34-dioxa-18,19-dithia-6,31-diazaheptatriacontane-1,36-diyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



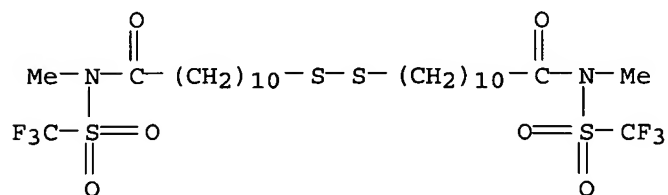
PAGE 1-B



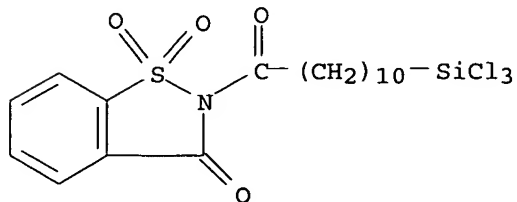
PAGE 1-C



RN 851778-63-7 CAPLUS  
 CN Undecanamide, 11,11'-dithiobis[N-methyl-N-[(trifluoromethyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 851778-65-9 CAPLUS  
 CN 1,2-Benzisothiazol-3(2H)-one, 2-[1-oxo-11-(trichlorosilyl)undecyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)



L65 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:638826 CAPLUS  
 DOCUMENT NUMBER: 143:149406  
 TITLE: Acoustic sensors and methods  
 INVENTOR(S): Baetzold, John P.; Benson, Karl E.; Bommarito, Mario G.; Daniels, Michael P.; Everaerts, Albert I.; Flanigan, Peggy-Jean P.; Free, Benton M.; Kipke, Cary A.; Lakshmi, Brinda B.; Leir, Charles M.; Moore, George G. I.; Nguyen, Lang N.; Shah, Rahul; Stark, Peter A.  
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA  
 SOURCE: PCT Int. Appl., 128 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.    | KIND                                                                                                                                                                                                                                                                                                                                                                                           | DATE     | APPLICATION NO. | DATE     |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|----------|
| WO 2005066092 | A2                                                                                                                                                                                                                                                                                                                                                                                             | 20050721 | WO 2004-US42382 | 20041217 |
| WO 2005066092 | A3                                                                                                                                                                                                                                                                                                                                                                                             | 20051013 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                             |          |                 |          |
| US 2005112672 | A1                                                                                                                                                                                                                                                                                                                                                                                             | 20050526 | US 2004-987522  | 20041112 |
| US 2005227076 | A1                                                                                                                                                                                                                                                                                                                                                                                             | 20051013 | US 2004-987075  | 20041112 |
| WO 2005064349 | A2                                                                                                                                                                                                                                                                                                                                                                                             | 20050714 | WO 2004-US42455 | 20041217 |
| WO 2005064349 | A3                                                                                                                                                                                                                                                                                                                                                                                             | 20051110 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                             |          |                 |          |
| WO 2005075973 | A2                                                                                                                                                                                                                                                                                                                                                                                             | 20050818 | WO 2004-US42662 | 20041217 |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                             |          |                 |          |

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-533169P P 20031230  
US 2004-987075 A 20041112  
US 2004-987522 A 20041112  
US 2003-713174 A2 20031114  
US 2003-714053 A2 20031114

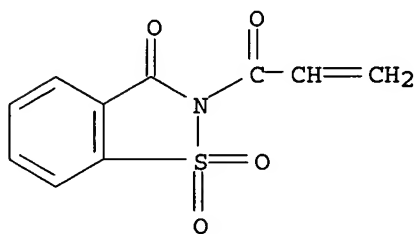
AB This article discloses acoustic sensors, preferably surface acoustic wave sensors, and more preferably shear horizontal surface acoustic wave sensors that include soluble polymers, monomers (optionally mixed with oligomers and/or polymers formed from such monomers), or multifunctional compds., for example, that can function as either waveguide materials, immobilization materials for secondary capture agents (e.g., antibodies), or both.

IT 41643-17-8P 851778-65-9P 852233-93-3P  
852233-95-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(acoustic sensors and methods)

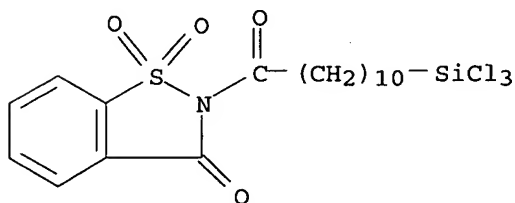
RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



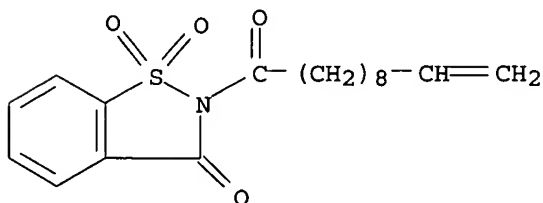
RN 851778-65-9 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-[1-oxo-11-(trichlorosilyl)undecyl]-, 1,1-dioxide (9CI) (CA INDEX NAME)

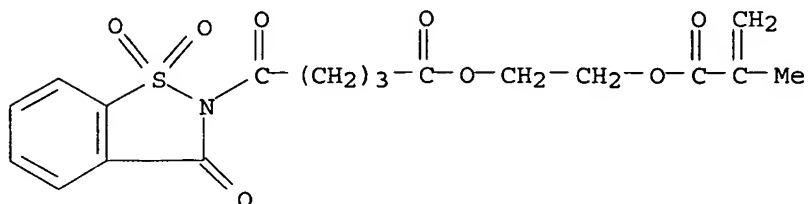


RN 852233-93-3 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-10-undecenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



RN 852233-95-5 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-,  
 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide (9CI) (CA  
 INDEX NAME)



L65 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2005:638661 CAPLUS  
 DOCUMENT NUMBER: 143:134114  
 TITLE: Soluble polymers as amine capture agents and methods  
 INVENTOR(S): Benson, Karl E.; Bommarito, G. Marco; Everaerts,  
 Albert I.; Lakshmi, Brinda B.; Leir, Charles M.;  
 Moore, George G. I.; Shah, Rahul R.; Stark, Peter A.  
 PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.    | KIND                                                                                                                                                                                                                                                                                                                                                                                               | DATE     | APPLICATION NO. | DATE     |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|----------|
| WO 2005065370 | A2                                                                                                                                                                                                                                                                                                                                                                                                 | 20050721 | WO 2004-US43917 | 20041229 |
| WO 2005065370 | A3                                                                                                                                                                                                                                                                                                                                                                                                 | 20050811 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW     |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                                 |          |                 |          |
| WO 2005064349 | A2                                                                                                                                                                                                                                                                                                                                                                                                 | 20050714 | WO 2004-US42455 | 20041217 |
| WO 2005064349 | A3                                                                                                                                                                                                                                                                                                                                                                                                 | 20051110 |                 |          |
| W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM |          |                 |          |
| RW:           | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                                 |          |                 |          |

WO 2005075973 A2 20050818 WO 2004-US42662 20041217  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-533169P

P 20031230

US 2004-15399

A 20041217

AB The invention relates to soluble polymers and methods for the preparation thereof,

wherein the polymers of the present invention have pendant acylsulfonamide amine-reactive groups that can be used for the capture of amine containing materials. Thus, mixing 154 mL DMF with 4-carboxybenzenesulfonamide (I) 30.0, succinic anhydride 16.41 and triethylamine 33.19 g at 50° under N for 4 h, after cooling to room temperature, combining the resulting mixture with 18.27 mL Ac<sub>2</sub>O, stirring for 1 h and working up gave a N-succinimide compound of I which was converted to an acyl chloride using thionyl chloride. Esterifying the succinimide with 2-hydroxyethyl methacrylate and polymerizing the resulting ester with a comonomer gave a polymer having amine-reactive pendant.

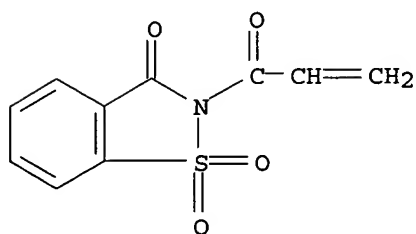
IT 41643-17-8P, 2-Acryloylsaccharin 852233-95-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(manufacture of soluble polymers as amine capture agents and method of use)

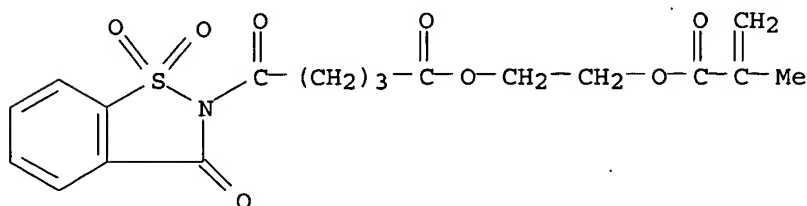
RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 852233-95-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-pentanoic acid, 8,3-dioxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



L65 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1980:633737 CAPLUS

DOCUMENT NUMBER: 93:233737

TITLE: Inhibition of elastase and other serine proteases by heterocyclic acylating agents

AUTHOR(S): Zimmerman, Morris; Morman, Harriet; Mulvey, Dennis; Jones, Howard; Frankshun, Robert; Ashe, Bonnie M.

CORPORATE SOURCE: Merck, Sharp Dohme Res. Lab., Rahway, NJ, 07065, USA

SOURCE: Journal of Biological Chemistry (1980), 255(20), 9848-51

CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

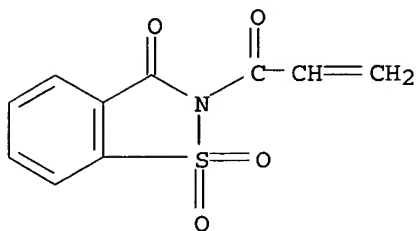
LANGUAGE: English

AB The N-acyl saccharins and N-acyl benzoisothiazolinones form a new class of acylating inhibitors of the serine proteases with a broad spectrum of activity. However, they are unique in that they are able to differentiate between various serine proteases because of the differential stability of the presumptive acylenzyme formed. Furoyl saccharin was the best studied among this class of inhibitors. Evidence is reported that the amide bond in the heterocyclic ring of this compound is cleaved by porcine pancreatic and human leukocyte elastases and chymotrypsin, forming acylenzymes. Radioisotope studies indicate that the saccharin portion of furoyl saccharin is attached to these enzymes in approx. a 1:1 molar ratio with enzyme, blocking the active site serine. The acyl-elastases thus prepared are unusually stable to hydrolysis, with  $k_{\text{deacyl}}$  values at neutral pH of  $2.3 \times 10^{-6} \text{ s}^{-1}$  for porcine pancreatic elastase and  $1.4 \times 10^{-6} \text{ s}^{-1}$  for human leukocyte elastase. Trypsin appears to be inhibited by a different mechanism. These data suggest a new approach to the design of specific synthetic protease inhibitors.

IT 41643-17-8

RL: BIOL (Biological study)  
(serine proteinase inhibition by)

RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)

L65 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1977:502315 CAPLUS

DOCUMENT NUMBER: 87:102315

TITLE: Acylsaccharins and acyl-3-oxo-1,2-benzisothiazolines

INVENTOR(S): Mulvey, Dennis; Jones, Howard; Zimmerman, Morris

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: Ger. Offen., 41 pp.

CODEN: GWXXBX

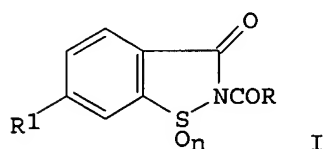
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| DE 2636599             | A1   | 19770303 | DE 1976-2636599 | 19760813   |
| DE 2636599             | C2   | 19851024 |                 |            |
| US 4195023             | A    | 19800325 | US 1975-606271  | 19750820   |
| DK 7603521             | A    | 19770221 | DK 1976-3521    | 19760804   |
| SE 7608748             | A    | 19770221 | SE 1976-8748    | 19760804   |
| SE 434946              | B    | 19840827 |                 |            |
| SE 434946              | C    | 19841220 |                 |            |
| NL 7608676             | A    | 19770222 | NL 1976-8676    | 19760804   |
| FR 2321288             | A1   | 19770318 | FR 1976-25077   | 19760818   |
| FR 2321288             | B1   | 19781222 |                 |            |
| CH 627461              | A    | 19820115 | CH 1976-10565   | 19760819   |
| JP 52025769            | A2   | 19770225 | JP 1976-98836   | 19760820   |
| CH 625232              | A    | 19810915 | CH 1980-4357    | 19800605   |
| PRIORITY APPLN. INFO.: |      |          | US 1975-606271  | A 19750820 |
|                        |      |          | CH 1976-10565   | A 19760819 |

GI



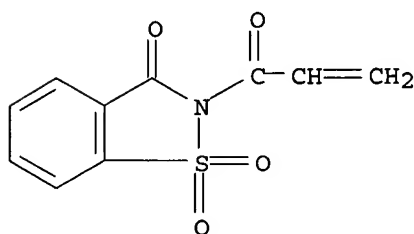
AB The title compds. I (R = 2-furyl, R1 = CO2Me, R = 2-furyl, CHET2, R1 = H, n = 2; R = 2-FC6H4, 2-thienyl, Ph, 3-MeOC6H4, Me3C, CHET2, cyclopropyl, vinyl, 2-furyl, 4-sulfo-2-furyl, R1 = H, n = 0), useful as elastase inhibitors and thus in treating emphysema, were prepared by acylating the corresponding saccharins or oxobenzisothiazolines with RCOCl, or by cleaving (2-ClCOC6H4S)2 with Cl2 and cyclizing the resultant 2-ClCOC6H4SCl with 2-furamide or Et2CHCONH2. I had inhibitory doses<sup>50</sup> of 0.2-2.5 µg/mL against elastase. I (R = 2-furyl, R1 = H, n = 0) gave 74% inhibition of emphysema at 3 mg in hamsters.

IT **41643-17-8P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and elastase-inhibiting activity of)

RN 41643-17-8 CAPLUS

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)

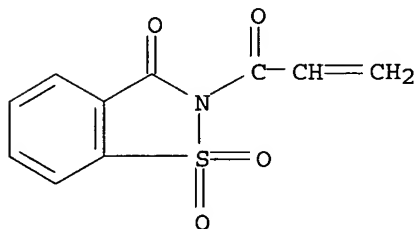


L65 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1973:144282 CAPLUS  
 DOCUMENT NUMBER: 78:144282  
 TITLE: Fungicides for agricultural use  
 INVENTOR(S): Chiyomaru, Isao; Kawada, Seigo; Takita, Kiyoshi  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 47043332 | B4   | 19721219 | JP 1971-31822   | 19710512 |
| JP 51016497 |      | 19760000 | JP              |          |

AB Benzisothiazolone dioxide derivs. such as 2-(1-oxopropyl)-1,2-benzisothiazol-3-one 1,1-dioxide (I) [37952-89-9], 2-(1-oxopentyl)-1,2-benzisothiazol-3-one 1,1-dioxide [40199-31-3], and 2-(1-oxooctyl)-1,2-benzisothiazol-3-one 1,1-dioxide [40199-32-4] were used as fungicides for plants. These fungicides were effective against *Piricularia oryzae*, *Glomerella cingulata* and *Phytophthora infestans*. I(1.25 kg/10 are) was effective for rice blight.  
 IT **41643-17-8**  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (fungicides)  
 RN 41643-17-8 CAPLUS  
 CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
 (CA INDEX NAME)



L65 ANSWER 8 OF 8 USPATFULL on STN

ACCESSION NUMBER: 80:15015 USPATFULL  
 TITLE: 2-(2-Furoyl)1,2-benzisothiazole-3-one, 2-(2-furoyl) saccharin, and 2-(2-thenoyl) saccharin  
 INVENTOR(S): Mulvey, Dennis, Milford, NJ, United States  
 Jones, Howard, Holmdel, NJ, United States  
 Zimmerman, Morris, Watchung, NJ, United States  
 PATENT ASSIGNEE(S): Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)

|                     | NUMBER         | KIND | DATE         |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 4195023     |      | 19800325     |
| APPLICATION INFO.:  | US 1975-606271 |      | 19750820 (5) |



DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Rizzo, Nicholas S.  
ASSISTANT EXAMINER: Jones, Lisa  
LEGAL REPRESENTATIVE: Westlake, Jr., Harry E., Speer, Jr., Raymond M.  
NUMBER OF CLAIMS: 3  
EXEMPLARY CLAIM: 1  
LINE COUNT: 786

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Certain novel acyl saccharins and acyl 3-oxo-1,2-benzisothiazolines, their preparation, pharmaceutical compositions and novel methods of inhibiting elatase and treating emphysema are disclosed.

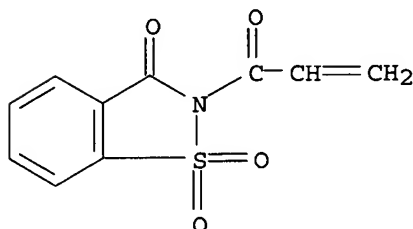
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 41643-17-8P

(preparation and elastase-inhibiting activity of)

RN 41643-17-8 USPATFULL

CN 1,2-Benzisothiazol-3(2H)-one, 2-(1-oxo-2-propenyl)-, 1,1-dioxide (9CI)  
(CA INDEX NAME)



**THIS PAGE BLANK (USPTO)**